March, 12th 2012
Automotive grade

# AUIPS6041(G)(R)(S)

## INTELLIGENT POWER HIGH SIDE SWITCH

### Features

- Over temperature shutdown (with auto-restart)
- Short circuit protection (current limit)
- Reverse battery protection (turns On the MOSFET)
- Full diagnostic capability (short circuit to battery)
- Active clamp
- Open load detection in On and Off state
- Ground loss protection
- Logic ground isolated from power ground
- ESD protection
- Lead Free and RoHS compliant

### Description

The AUIPS6041(G)(R)(S) is a five terminal Intelligent Power Switch (IPS) for use in a high side configuration. It features short circuit, over-temperature, ESD protection, inductive load capability and diagnostic feedback. The output current is limited to the Ilim value. The current limitation is activated until the thermal protection acts. The over-temperature protection turns off the device if the junction temperature exceeds the Tshutdown value. It will automatically restart after the junction has cooled 7°C below the Tshutdown value. The reverse battery protection turns On the MOSFET. A diagnostic pin provides different voltage levels for each fault condition. The double level shifter circuitry will allow large offsets between the logic and load ground.

### Product Summary

| | |
|---|---|
| Rds(on) | 130mΩ max. |
| Vclamp | 39V |
| I Limit | 7A |
| Open load | 3V / 0.22A |

### Packages

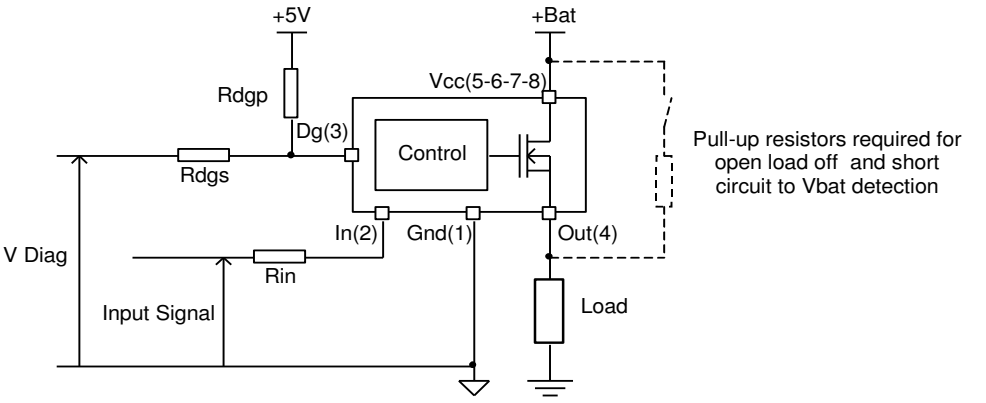
SO8
AUIPS6041G

D-Pak
AUIPS6041R

TO220
AUIPS6041

D2Pak
AUIPS6041S

### Typical Connection



## Qualification Information†

| | | | |
|---|---|---|---|
| **Qualification Level** | | Automotive (per AEC-Q100††) | |
| | | Comments: This family of ICs has passed an Automotive qualification. IR's Industrial and Consumer qualification level is granted by extension of the higher Automotive level. | |
| **Moisture Sensitivity Level** | | D2PAK-5L | MSL1, 260°C (per IPC/JEDEC J-STD-020) |
| | | TO-220 | Not applicable (non-surface mount package style) |
| | | DPAK-5L | MSL1, 260°C (per IPC/JEDEC J-STD-020) |
| | | SOIC-8L | MSL2, 260°C (per IPC/JEDEC J-STD-020) |
| **ESD** | Machine Model | Class M2 (+/-150V) ††† (per AEC-Q100-003) | |
| | Human Body Model | Class H1C (+/-1500V) ††† (per AEC-Q100-002) | |
| | Charged Device Model (SOIC, DPAK,D2PAK) | Class C4 (+/-900V) ††† (per AEC-Q100-011) | |
| | Charged Device Model (TO220) | Class C3B (+/-750V) ††† (per AEC-Q100-011) | |
| **IC Latch-Up Test** | | Class II, Level A (per AEC-Q100-004) | |
| **RoHS Compliant** | | Yes | |

† Qualification standards can be found at International Rectifier's web site http://www.irf.com/
†† Exceptions to AEC-Q100 requirements are noted in the qualification report.
††† Passing voltage level

## Absolute Maximum Ratings

Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur. All voltage parameters are referenced to Ground lead. Tj= -40℃..150℃, Vcc=6..35V (unless otherwise specified).

| Symbol | Parameter | Min. | Max. | Units |
|---|---|---|---|---|
| Vout | Maximum output voltage | Vcc-35 | Vcc+0.3 | V |
| Voffset | Maximum logic ground to load ground offset | Vcc-35 | Vcc+0.3 | |
| Vin | Maximum input voltage | -0.3 | 5.5 | |
| Vcc max. | Maximum Vcc voltage | — | 36 | |
| Vcc cont. | Maximum continuous Vcc voltage | — | 28 | |
| Iin max. | Maximum IN current | -3 | 10 | mA |
| Idg max. | Maximum diagnostic output current | -3 | 10 | |
| Vdg | Maximum diagnostic output voltage | -0.3 | 5.5 | V |
| Pulse 2a max | Maximum voltage ISO pulse 2a x 500cy (ISO7637) | — | 55 | V |
| Pd | Maximum power dissipation (internally limited by thermal protection) Rth=100℃/W AUIPS6041G | — | 1.25 | W |
| | Rth=50℃/W AUIPS6041R 1"sqrt. footprint | — | 2.5 | |
| Tj max. | Max. storage & operating temperature junction temperature | -40 | 150 | ℃ |

## Thermal Characteristics

| Symbol | Parameter | Typ. | Max. | Units |
|---|---|---|---|---|
| Rth1 | Thermal resistance junction to ambient AUIPS6041G | 100 | — | ℃/W |
| Rth1 | Thermal resistance junction to ambient AUIPS6041R D-Pak std. footprint | 70 | — | |
| Rth2 | Thermal resistance junction to ambient AUIPS6041R D-Pak 1" sqrt. footprint | 50 | — | |
| Rth3 | Thermal resistance junction to case AUIPS6041(R)(S) D-Pak/D2pak/TO220 | 6 | — | |
| Rth1 | Thermal resistance junction to ambient AUIPS6041(S) D2Pak/TO220 std. footprint | 60 | — | |
| Rth2 | Thermal resistance junction to ambient AUIPS6041S D2Pak 1" sqrt. footprint | 40 | — | |

## Recommended Operating Conditions

These values are given for a quick design. For operation outside these conditions, please consult the application notes.

| Symbol | Parameter | Min. | Max. | Units |
|---|---|---|---|---|
| VIH | High level input voltage | 4 | 5.5 | V |
| VIL | Low level input voltage | 0 | 0.9 | |
| Iout | Continuous drain current, Tambient=85℃, Tj=125℃, Vin=5V Rth=100℃/W AUIPS6041G | — | 1.6 | A |
| | Rth=50℃/W AUIPS6041R 1" sqrt. footprint | — | 2.3 | |
| Rin | Recommended resistor in series with IN pin | 4 | 10 | kΩ |
| Rdgs | Recommended resistor in series with DG pin for reverse battery protection | 4 | 20 | |
| Rdgp | Recommended pull-up resistor for DG | 4 | 20 | |
| Rol | Recommended pull-up resistor for open load detection | 5 | 100 | |
| F max. | Max. switching frequency | — | 3.5 | kHz |

## Static Electrical Characteristics

Tj=-40℃..150℃, Vcc=6..28V (unless otherwise specified), typical values are given for Vcc=14V and Tj=25℃

| Symbol | Parameter | Min. | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| Rds(on) | ON state resistance Tj=25℃ | — | 110 | 130 | mΩ | Vin=5V, Iout=2.5A |
| | ON state resistance Tj=150℃ | — | 190 | 230 | | Vin=5V, Iout=2.5A |
| | ON state resistance Tj=25℃, Vcc=6V | — | 125 | 155 | | Vin=5V, Iout=1.5A |
| | ON state resistance during reverse battery Tj=25℃ | — | 140 | 180 | | Vcc-Gnd=-14V |
| Vcc op. | Operating voltage range | 6 | — | 28 | V | |
| V clamp 1 | Vcc to Out clamp voltage 1 | 37 | 39 | 43 | | Iout=20mA |
| V clamp 2 | Vcc to Out clamp voltage 2 | — | 40 | — | | Iout=2.5A (see Fig. 1) |
| Icc Off | Supply current when Off and with Vout connected to ground Rconnection <4Ω | — | 4 | 9 | µA | Vin=0V, Vout=0V, Tj=25℃, Vcc=14V |
| Icc On | Supply current when On | — | 2.2 | 5 | mA | Vin=5V, Vcc=14V |
| Vih | Input high threshold voltage | — | 2.5 | 3 | V | |
| Vil | Input low threshold voltage | 1.5 | 2 | — | | |
| In hyst. | Input hysteresis | 0.2 | 0.5 | 1 | | |
| Iin On | Input current when device is On | — | 40 | 100 | µA | Vin=5V |
| Idg | Dg leakage current | — | 0.1 | 10 | | Vdg=5V |
| Vdg | Low level DG voltage | — | 0.25 | 0.4 | V | Idg=1.6mA |

## Switching Electrical Characteristics

Vcc=14V, Resistive load=6Ω, Vin=5V, Tj=-40℃..150℃, typical values are given for Tj=25℃

| Symbol | Parameter | Min. | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| Tdon | Turn-on delay time | — | 5 | 15 | µs | see Fig. 3 |
| Tr1 | Rise time to Vout=Vcc-5V | — | 3 | 10 | | |
| Tr2 | Rise time to Vout=0.9 x Vcc | — | 4 | 30 | | |
| dV/dt (On) | Turn On dV/dt | — | 2.5 | — | V/µs | |
| EOn | Turn On energy | — | 100 | — | µJ | |
| Tdoff | Turn-off delay time | — | 10 | 20 | µs | |
| Tf | Fall time to Vout=0.1 x Vcc | — | 3 | 10 | | |
| dV/dt (Off) | Turn Off dV/dt | — | 6.5 | — | V/µs | |
| EOff | Turn Off energy | — | 50 | — | µJ | |

## Protection Characteristics

Tj=-40℃..150℃, Vcc=6..28V (unless otherwise specified), typical values are given for Vcc=14V and Tj=25℃

| Symbol | Parameter | Min. | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| Ilim | Internal current limit | 4 | 7 | 10 | A | Vout=0V, Tj=25℃ |
| Tsd+ | Over temperature high threshold | 150(1) | 165 | — | ℃ | See fig. 2 |
| Tsd- | Over temperature low threshold | — | 158 | — | | |
| Vsc | Short-circuit detection voltage(2) | 2 | 3 | 4 | V | |
| UV+ | | — | 5 | 6.2 | | |
| UV - | | — | 4.5 | 5.8 | | |
| VOL Off | Open load detection threshold | 2 | 3 | 4 | | |
| I OL On | Open load detection threshold | 0.05 | 0.17 | 0.27 | A | Tj=-40..25℃ |
| | | 0.05 | 0.15 | 0.22 | | Tj=25..150℃ |

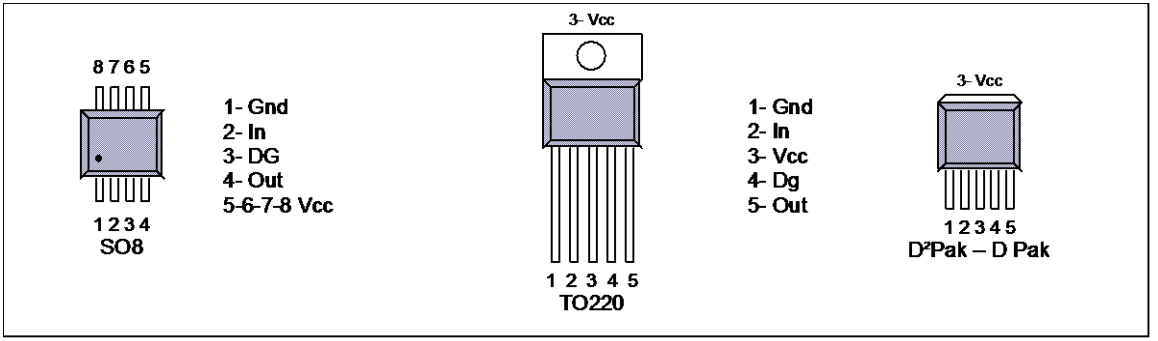
(1) Guaranteed by design
(2) Reference to Vcc

## True Table

| Operating Conditions | IN | OUT | DG |
|---|---|---|---|
| Normal | H | H | H |
| Normal | L | L | H |
| Open Load | H | H | L |
| Open Load (3) | L | H | L |
| Short circuit to Gnd | H | L | L |
| Short circuit to Gnd | L | L | H |
| Short circuit to Vcc | H | H | L (4) |
| Short circuit to Vcc (5) | L | H | L |
| Over-temperature | H | L | L |
| Over-temperature | L | L | H |

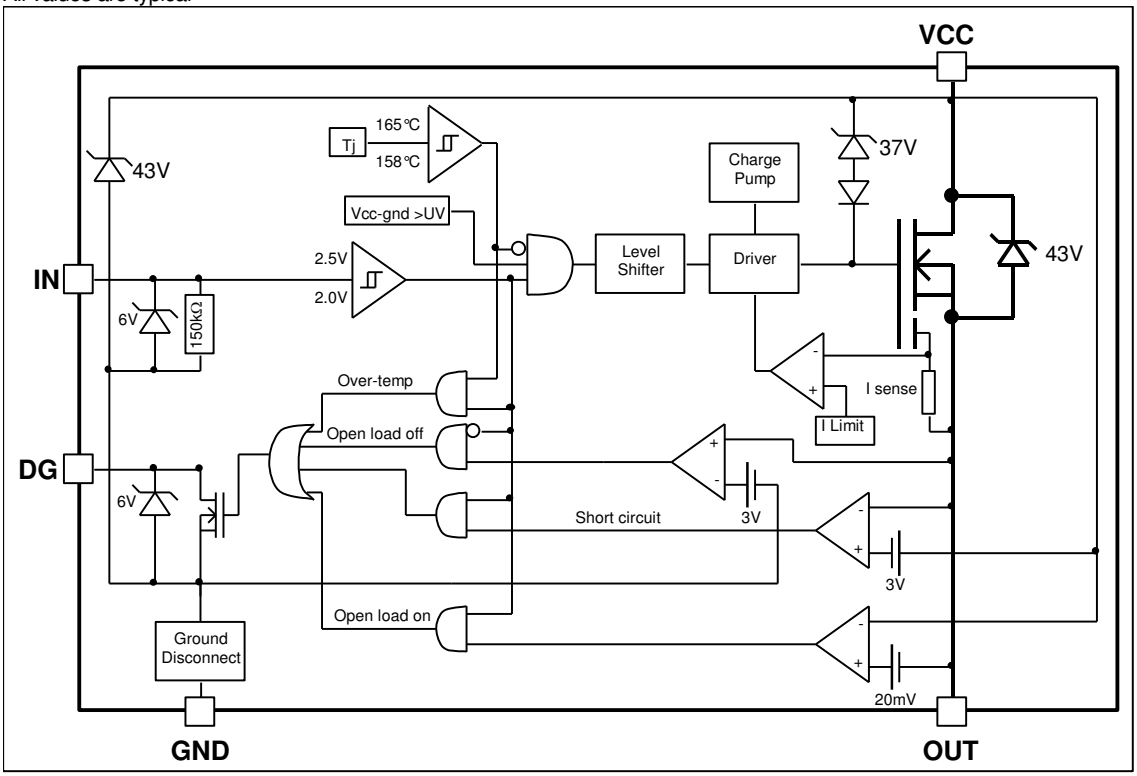
(3) With a pull-up resistor connected between the output and Vcc.
(4) Vds lower than 10mV.
(5) Without a pull-up resistor connected between the output and Vcc.

## Lead Assignments



## Functional Block Diagram

All values are typical



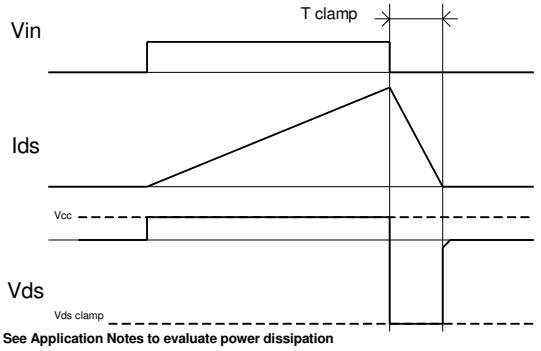



**Figure 1 – Active clamp waveforms**

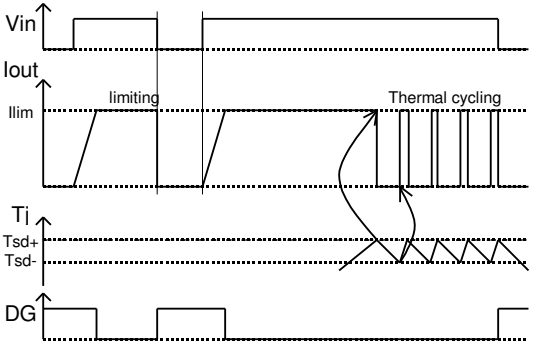



**Figure 2 – Protection timing diagram**

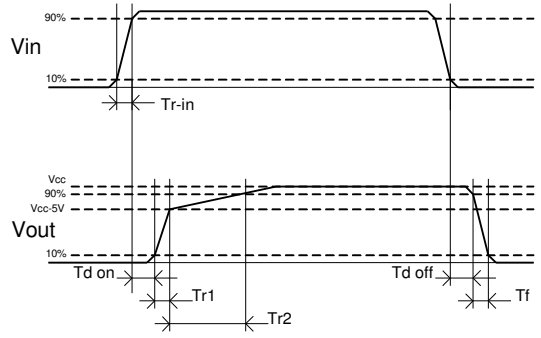



**Figure 3 – Switching times definitions**

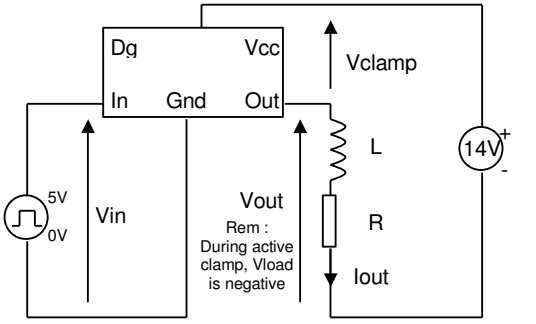



**Figure 4 – Active clamp test circuit**

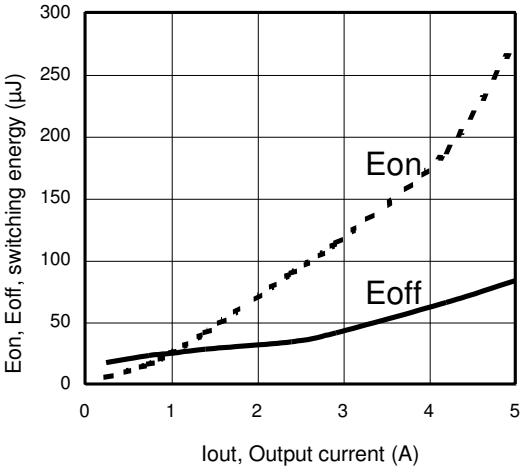



**Figure 5 – Switching energy (µJ) Vs Output current (A)**

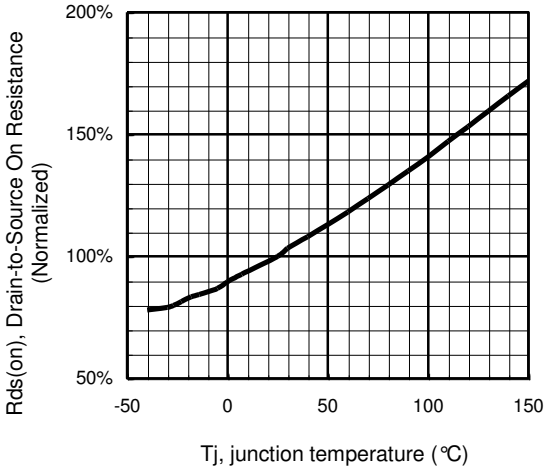



**Figure 6 - Normalized Rds(on) (%) Vs Tj (°C)**

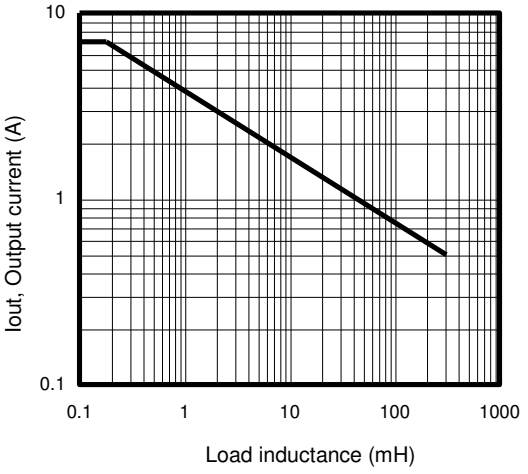



**Figure 7 – Max. Output current (A) Vs Load inductance (mH)**

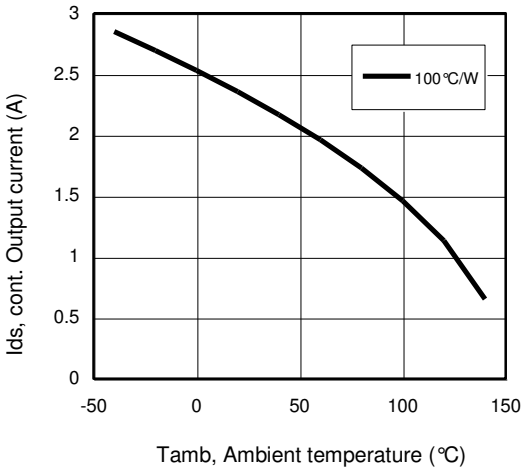



**Figure 8 – Max. ouput current (A) Vs Ambient temperature (°C)**

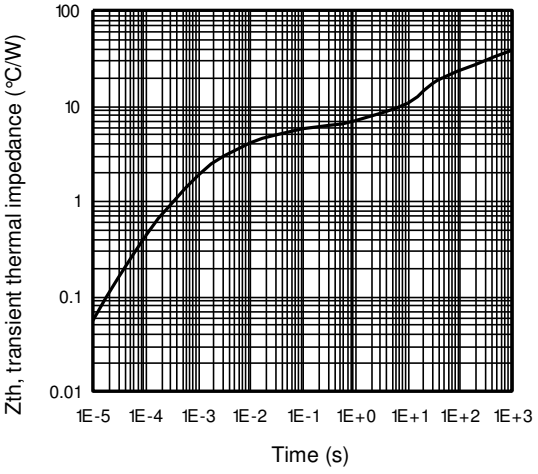



**Figure 9 – Transient thermal impedance (°C/W) Vs time (s)**

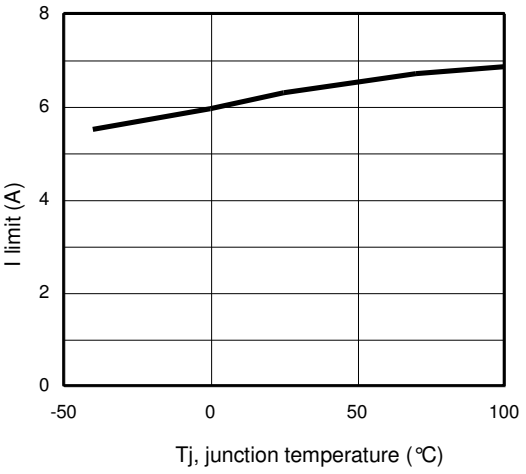



**Figure 10 –I limit (A) Vs junction temperature (°C)**

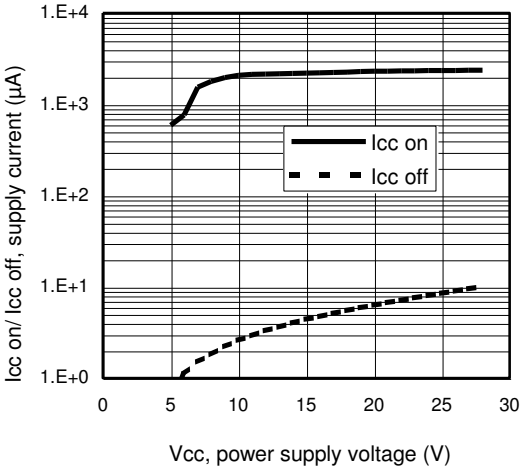



**Figure 11 – Icc on/ Icc off (µA) Vs Vcc (V)***

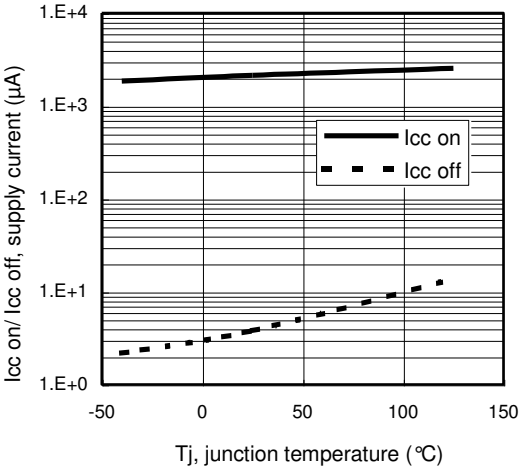
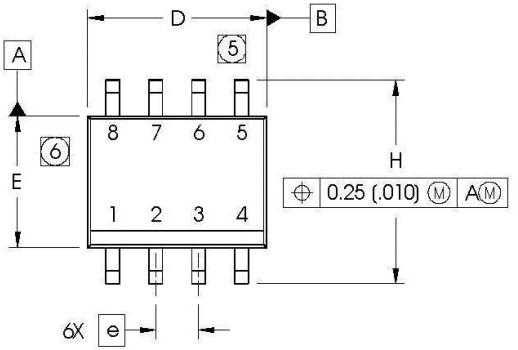



**Figure 12 – Icc on/ Icc off (µA) Vs Tj (°C)***

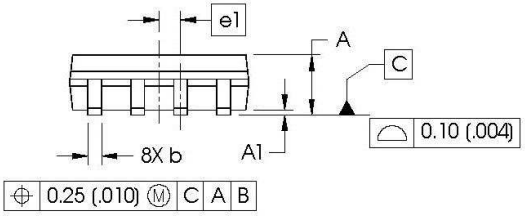
*Vout connected to ground with R<4Ω

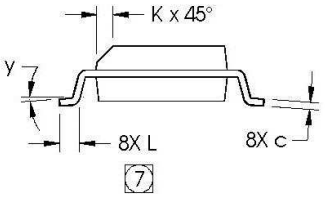
## Case Outline – SO8

Dimensions are shown in millimeters (inches)



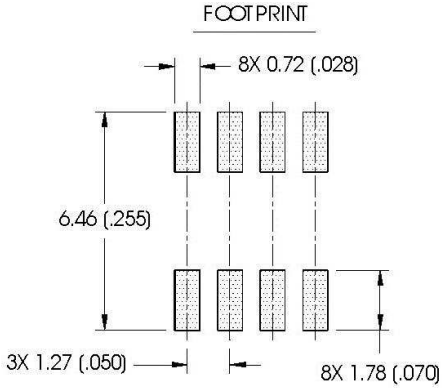

| DIM | INCHES | | MILLIMETERS | |
|---|---|---|---|---|
| | MIN | MAX | MIN | MAX |
| A | .0532 | .0688 | 1.35 | 1.75 |
| A1 | .0040 | .0098 | 0.10 | 0.25 |
| b | .013 | .020 | 0.33 | 0.51 |
| c | .0075 | .0098 | 0.19 | 0.25 |
| D | .189 | .1968 | 4.80 | 5.00 |
| E | .1497 | .1574 | 3.80 | 4.00 |
| e | .050 BASIC | | 1.27 BASIC | |
| e1 | .025 BASIC | | 0.635 BASIC | |
| H | .2284 | .2440 | 5.80 | 6.20 |
| K | .0099 | .0196 | 0.25 | 0.50 |
| L | .016 | .050 | 0.40 | 1.27 |
| y | 0° | 8° | 0° | 8° |



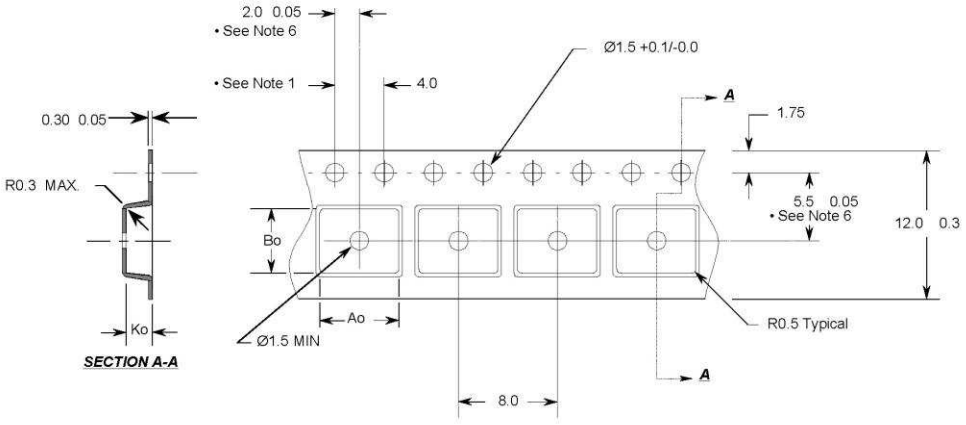




NOTES:

1. DIMENSIONING & TOLERANCING PER ASME Y14.5M-1994.
2. CONTROLLING DIMENSION: MILLIMETER
3. DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
4. OUTLINE CONFORMS TO JEDEC OUTLINE MS-012AA.
5. DIMENSION DOES NOT INCLUDE MOLD PROTRUSIONS. MOLD PROTRUSIONS NOT TO EXCEED 0.15 (.006).
6. DIMENSION DOES NOT INCLUDE MOLD PROTRUSIONS. MOLD PROTRUSIONS NOT TO EXCEED 0.25 (.010).
7. DIMENSION IS THE LENGTH OF LEAD FOR SOLDERING TO A SUBSTRATE.



## Tape & Reel - SO8

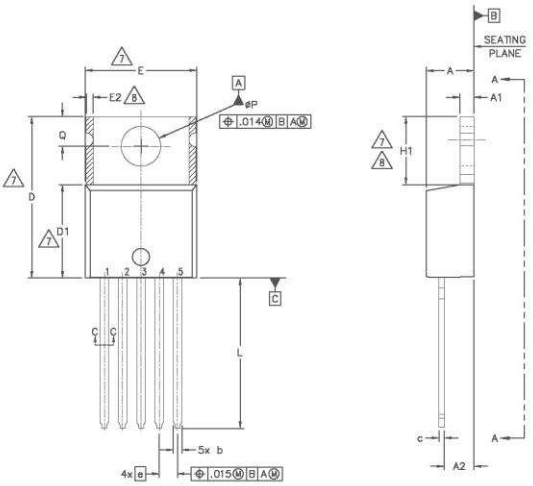


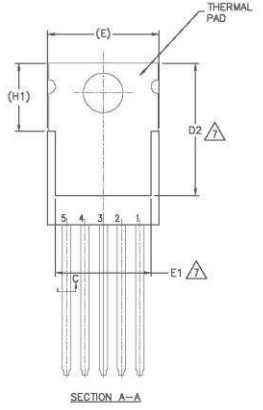

**Notes:**
1. 10 sprocket hole pitch cumulative tolerance 0.2
2. Camber not to exceed 1mm in 100mm
3. Material: Black Conductive Advantek Polystyrene
4. Ao and Bo measured on a plane 0.3mm above the bottom of the pocket
5. Ko measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
6. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

Ao = 6.4 mm
Bo = 5.2 mm
Ko = 2.1 mm

- All Dimensions in Millimeters -

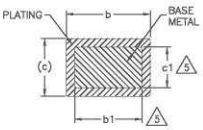
## Case Outline - TO220 (5 leads)




SECTION A–A

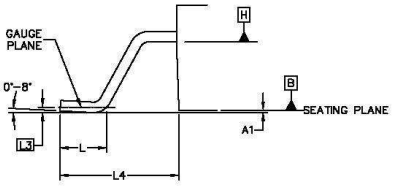
| SYMBOL | DIMENSIONS | | | | NOTES |
|---|---|---|---|---|---|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 3.56 | 4.83 | .140 | .190 | |
| A1 | 0.51 | 1.40 | .020 | .055 | |
| A2 | 2.03 | 2.92 | .080 | .115 | |
| b | 0.64 | 0.89 | .025 | .035 | |
| b1 | 0.64 | 0.84 | .025 | .033 | 5 |
| c | 0.36 | 0.61 | .014 | .024 | |
| c1 | 0.36 | 0.56 | .014 | .022 | 5 |
| D | 14.22 | 16.51 | .560 | .650 | 4 |
| D1 | 8.38 | 9.02 | .330 | .355 | |
| D2 | 11.68 | 12.88 | .460 | .507 | 7 |
| E | 9.65 | 10.67 | .380 | .420 | 4,7 |
| E1 | 6.86 | 8.89 | .270 | .350 | 7 |
| E2 | – | 0.76 | – | .030 | 8 |
| e | 1.70 BSC | | .067 BSC | | |
| H1 | 5.84 | 6.86 | .230 | .270 | 7,8 |
| L | 12.70 | 14.73 | .500 | .580 | |
| øP | 3.53 | 3.73 | .139 | .147 | |
| Q | 2.54 | 3.05 | .100 | .120 | |



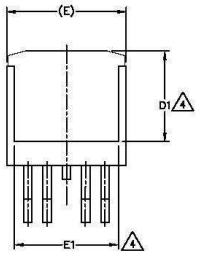

SECTION C–C

NOTES:
1.– DIMENSIONING AND TOLERANCING AS PER ASME Y14.5 M– 1994.
2.– DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS].
3.– LEAD DIMENSION AND FINISH UNCONTROLLED IN L1.
4.– DIMENSION D, D1 & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED .005" (0.127) PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY.
5.– DIMENSION b1 & c1 APPLY TO BASE METAL ONLY.
6.– CONTROLLING DIMENSION : INCHES.
7.– THERMAL PAD CONTOUR OPTIONAL WITHIN DIMENSIONS E,H1,D2 & E1
8.– DIMENSION E2 X H1 DEFINE A ZONE WHERE STAMPING AND SINGULATION IRREGULARITIES ARE ALLOWED.
9.– OUTLINE CONFORMS TO JEDEC TO–220, EXCEPT A2 (max.) AND D2 (min.) WHERE DIMENSIONS ARE DERIVED FROM THE ACTUAL PACKAGE OUTLINE.
10.– LEADS AND DRAIN ARE PLATED WITH 100% Sn

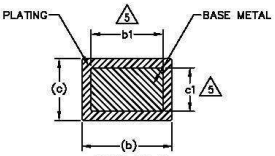
## Case Outline 5 Leads - D2PAK



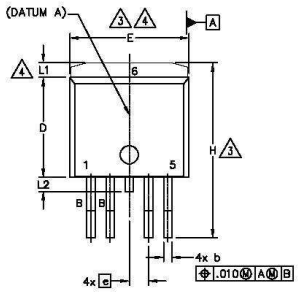

DETAIL "A"
ROTATED 90° CW
SCALE 8:1

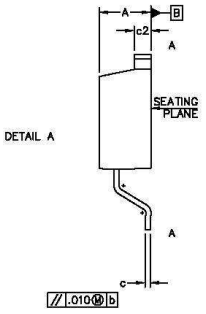



VIEW A–A




SECTION B–B
SCALE: NONE



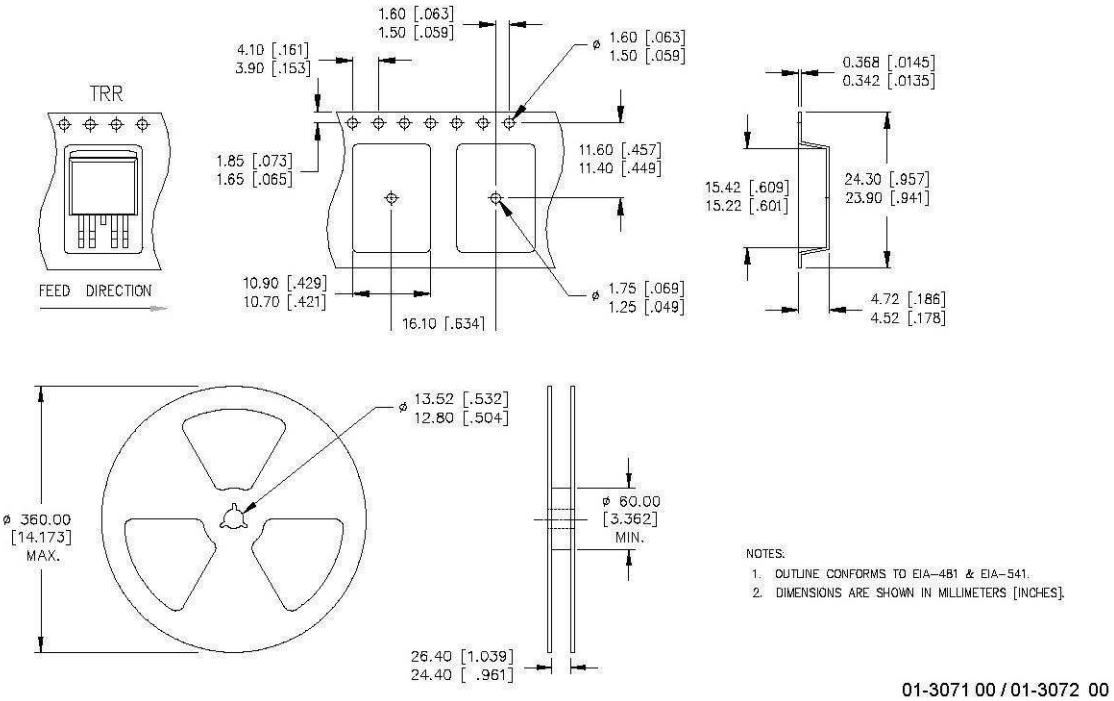




NOTES:

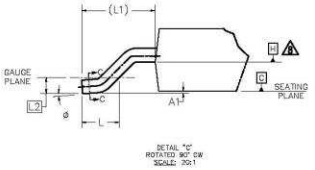
1. DIMENSIONING AND TOLERANCING AS PER ASME Y14.5M–1994
2. DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
3. DIMENSION D & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.127 [.005"] PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTMOST EXTREMES OF THE PLASTIC BODY AT DATUM H.
4. THERMAL PAD CONTOUR OPTIONAL WITHIN DIMENSION E, L1, D1 & E1.
5. DIMENSION b1 AND c1 APPLY TO BASE METAL ONLY.
6. DATUM A & B TO BE DETERMINED AT DATUM PLANE H.
7. CONTROLLING DIMENSION: INCH.
8. OUTLINE CONFORMS TO JEDEC OUTLINE TO-263BA.
9. LEADS AND DRAIN ARE PLATED : 100% Sn

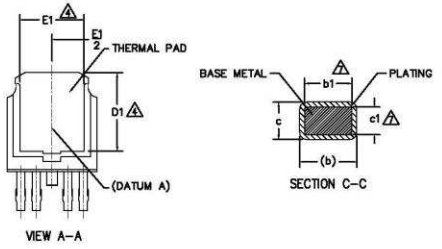
| SYMBOL | DIMENSIONS | | | | NOTES |
|---|---|---|---|---|---|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 4.06 | 4.83 | .160 | .190 | |
| A1 | – | 0.254 | – | .010 | |
| b | 0.51 | 0.99 | .020 | .039 | 4 |
| b1 | 0.51 | 0.89 | .020 | .035 | |
| c | 0.38 | 0.74 | .015 | .029 | |
| c1 | 0.38 | 0.58 | .015 | .023 | 4 |
| c2 | 1.14 | 1.65 | .045 | .065 | |
| D | 8.38 | 9.65 | .330 | .380 | 3 |
| D1 | 6.86 | – | .270 | – | |
| E | 9.65 | 10.67 | .380 | .420 | 3 |
| E1 | 6.22 | – | .245 | – | |
| e | 1.70 BSC | | .067 BSC | | |
| H | 14.61 | 15.88 | .575 | .625 | |
| L | 1.78 | 2.79 | .070 | .110 | |
| L1 | – | 1.68 | – | .066 | |
| L2 | – | 1.78 | – | .070 | |
| L3 | 0.25 BSC | | .010 BSC | | |
| L4 | 4.78 | 5.28 | .188 | .208 | |

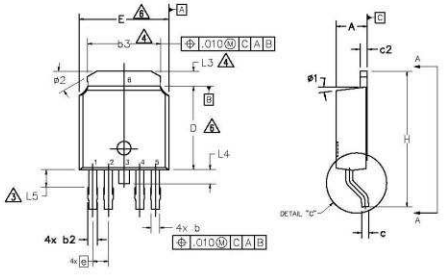
## Tape & Reel 5 Leads - D2PAK



## Case Outline 5 Leads – DPAK




| SYMBOL | DIMENSIONS | | | | NOTES |
|---|---|---|---|---|---|
| | MILLIMETERS | | INCHES | | |
| | MIN. | MAX. | MIN. | MAX. | |
| A | 2.18 | 2.39 | .086 | .094 | |
| A1 | – | 0.13 | – | .005 | |
| b | 0.56 | 0.79 | .022 | .031 | |
| b1 | .056 | 0.74 | .022 | .029 | 2 |
| b2 | 0.65 | 0.89 | .026 | .035 | |
| b3 | 4.95 | 5.46 | .195 | .215 | 2 |
| c | 0.46 | 0.61 | .018 | .024 | |
| c1 | 0.41 | 0.56 | .016 | .022 | 2 |
| c2 | 0.46 | 0.89 | .018 | .035 | |
| D | 5.97 | 6.22 | .235 | .245 | 3 |
| D1 | 5.21 | – | .205 | – | |
| E | 6.35 | 6.73 | .250 | .265 | 3 |
| E1 | 4.32 | – | .170 | – | |
| e | 1.14 BSC | | .045 BSC | | |
| H | 9.40 | 10.41 | .370 | .410 | |
| L | 1.40 | 1.78 | .055 | .070 | |
| L1 | 2.74 BSC | | .108 REF. | | |
| L2 | 0.51 BSC | | .020 BSC | | |
| L3 | 0.89 | 1.27 | .035 | .050 | |
| L4 | – | 1.02 | – | .040 | |
| L5 | 1.14 | 1.52 | .045 | .060 | |
| ø | 0° | 10° | 0° | 10° | |
| ø1 | 0° | 15° | 0° | 15° | |
| ø2 | 28° | 32° | 28° | 32° | |

NOTES:

1.– DIMENSIONING AND TOLERANCING AS PER ASME Y14.5M–1994

2.– DIMENSION ARE SHOWN IN INCHES [MILLIMETERS].

3.– LEAD DIMENSION UNCONTROLLED IN L5.

4.– DIMENSION D1, E1, L3 & b3 ESTABLISH A MINIMUM MOUNTING SURFACE FOR THERMAL PAD.

5.– SECTION C–C DIMENSIONS APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN .005 AND 0.10 [0.13 AND 0.25] FROM THE LEAD TIP.

6.– DIMENSION D & E DO NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED .005 [0.13] PER SIDE. THESE DIMENSIONS ARE MEASURED AT THE OUTMOST EXTREMES OF THE PLASTIC BODY.

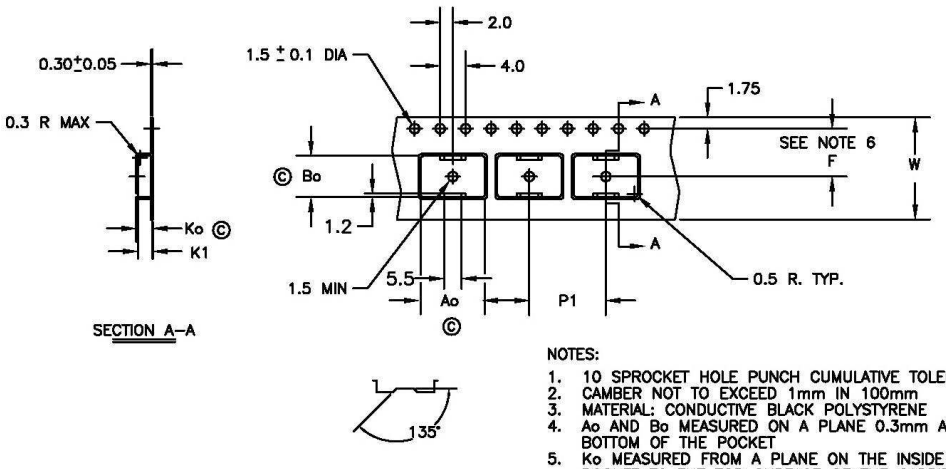
7.– DIMENSION b1 & c1 APPLIED TO BASE METAL ONLY.

8.– DATUM A & B TO BE DETERMINED AT DATUM PLANE H.

9.– OUTLINE CONFORMS TO JEDEC OUTLINE TO–252.

10. LEADS AND DRAIN ARE PLATED WITH 100% Sn

## Tape & Reel 5 Leads – DPAK

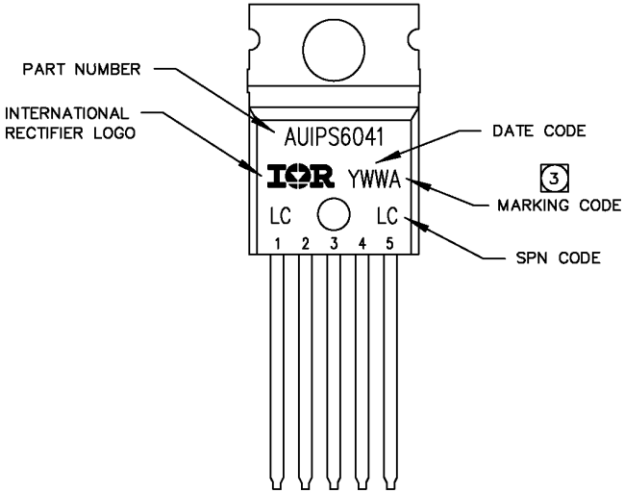


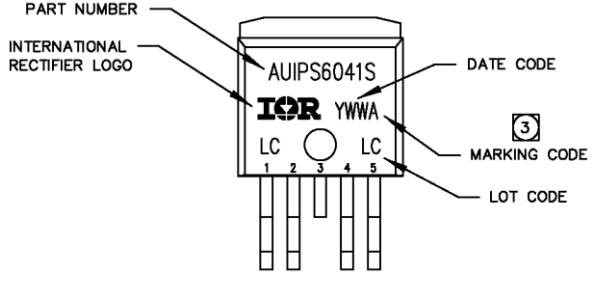

Ao = 10.5 mm
Bo = 7.0 mm
Ko = 2.8 mm
K1 = 2.4 mm
F = 7.5 mm
P1 = 12.0 mm
W = 16.0 ± .3 mm

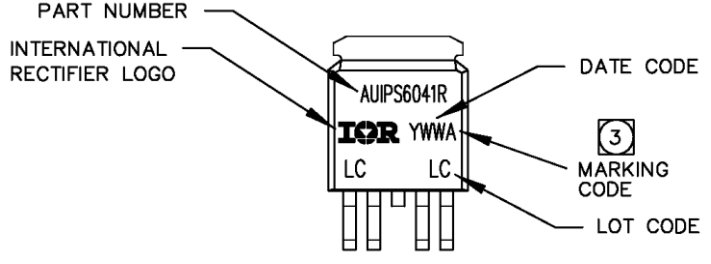
NOTES:

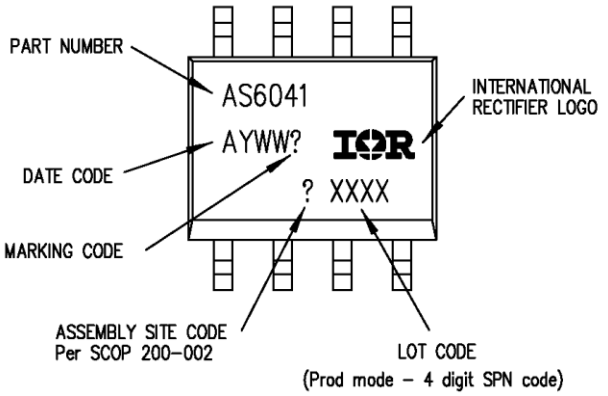
1. 10 SPROCKET HOLE PUNCH CUMULATIVE TOLERANCE ±.02
2. CAMBER NOT TO EXCEED 1mm IN 100mm
3. MATERIAL: CONDUCTIVE BLACK POLYSTYRENE
4. Ao AND Bo MEASURED ON A PLANE 0.3mm ABOVE THE BOTTOM OF THE POCKET
5. Ko MEASURED FROM A PLANE ON THE INSIDE BOTTOM OF THE POCKET TO THE TOP SURFACE OF THE CARRIER
6. POCKET POSITION RELATIVE TO THE SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE
7. VENDOR: (OPTIONAL)
8. MUST ALSO MEET REQUIREMENTS OF EIA STANDARD #EIA–481A, TAPING OF SURFACE–MOUNT COMPONENTS FOR AUTOMATIC PLACEMENT.
9. TOLERANCE TO BE MANUFACTURER STANDARD
10. SURFACE RESISTIVITY OF MOLDED MATL: MUST MEASURE LESS THAN OR EQUAL TO $10^{8}$ OHMS PER SQUARE. MEASURED IN ACCORDANCE TO PROCEDURE GIVEN IN ASTM D–257 & ASTM D–991 (REF. C–9000 SPEC.)
11. TOTAL LENGTH PER REEL MUST BE 79 METERS
12. © CRITICAL DIMENSION

## Part Marking Information






## Ordering Information

| Base Part Number | Package Type | Standard Pack | | Complete Part Number |
|---|---|---|---|---|
| | | Form | Quantity | |
| AUIPS6041 | TO220-5-Leads | Tube | 50 | AUIPS6041 |
| AUIPS6041S | D2-Pak-5-Leads | Tube | 50 | AUIPS6041S |
| | | Tape and reel left | 800 | AUIPS6041STRL |
| | | Tape and reel right | 800 | AUIPS6041STRR |
| AUIPS6041R | D-Pak-5-Leads | Tube | 75 | AUIPS6041R |
| | | Tape and reel | 2000 | AUIPS6041RTR |
| | | Tape and reel left | 3000 | AUIPS6041RTRL |
| | | Tape and reel right | 3000 | AUIPS6041RTRR |
| AUIPS6041G | SOIC-8 | Tube | 95 | AUIPS6041G |
| | | Tape and reel | 2500 | AUIPS6041GTR |

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Tel: (310) 252-7105

## Revision History

| Revision | Date | Notes/Changes |
|---|---|---|
| C | Februrary, 28th 2009 | AU number update |
| D | March, 14th 2011 | AU release |
| F | May 15, 2012 | Add the test condition for the ICC (off) parameters |
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