



Micro Commercial Components

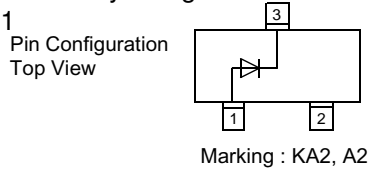


Micro Commercial Components
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MMBD4148

Features

- Low Current Leakage
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1



350mW 100 Volt Silicon Epitaxial Diode

Maximum Ratings

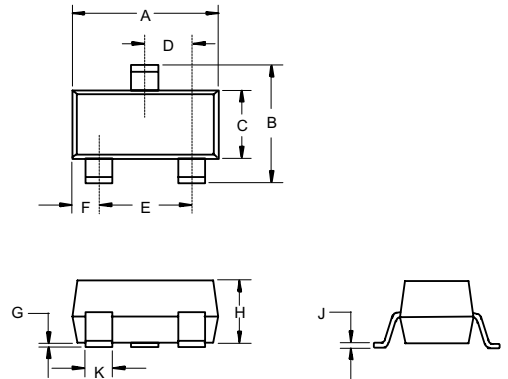
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 357K/W Junction To Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------|-------|---|
| Reverse Voltage | V_R | 75V | |
| Peak Reverse Voltage | V_{RM} | 100V | |
| Average Rectified Current | I_O | 150mA | Resistive Load $f > 50\text{Hz}$ |
| Power Dissipation | P_{TOT} | 350mW | |
| Junction Temperature | T_J | 150°C | |
| Peak Forward Surge Current | I_{FSM} | 1A | $t=1\text{s, Non-Repetitive}$ |
| Maximum Instantaneous Forward Voltage | V_F | .855V | $I_{FM} = 10\text{mA};$ $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 25nA | $T_J = 25^\circ\text{C}$ $V_R = 20\text{V}$ |
| Typical Junction Capacitance | C_J | 2pF | Measured at 1.0MHz, $V_R=0\text{V}$ |
| Reverse Recovery Time | T_{rr} | 4nS | $I_F=10\text{mA}$ $V_R = 6\text{V}$ $R_L=100\Omega$ |

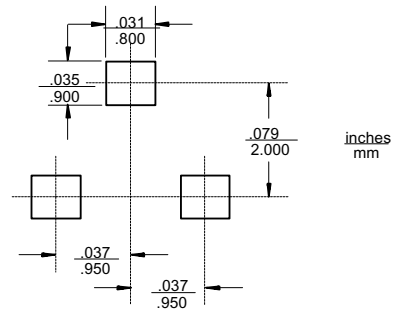
*Pulse test: Pulse width 300 μsec , Duty cycle 2%

SOT-23



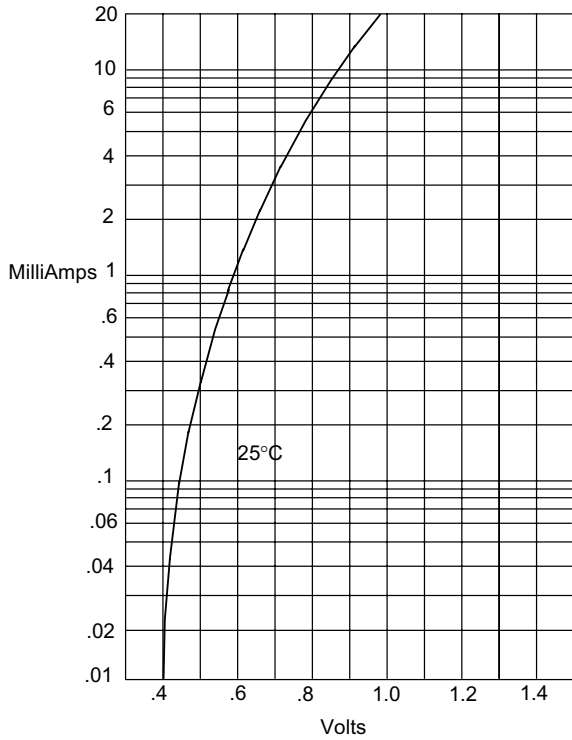
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| A | .110 | .120 | 2.80 | 3.04 | |
| B | .083 | .104 | 2.10 | 2.64 | |
| C | .047 | .055 | 1.20 | 1.40 | |
| D | .035 | .041 | .89 | 1.03 | |
| E | .070 | .081 | 1.78 | 2.05 | |
| F | .018 | .024 | .45 | .60 | |
| G | .0005 | .0039 | .013 | .100 | |
| H | .035 | .044 | .89 | 1.12 | |
| J | .003 | .007 | .085 | .180 | |
| K | .015 | .020 | .37 | .51 | |

Suggested Solder Pad Layout



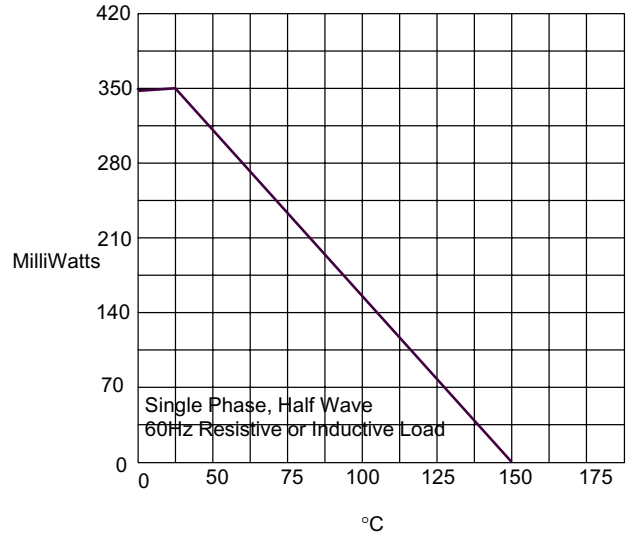
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Figure 1
Typical Forward Characteristics



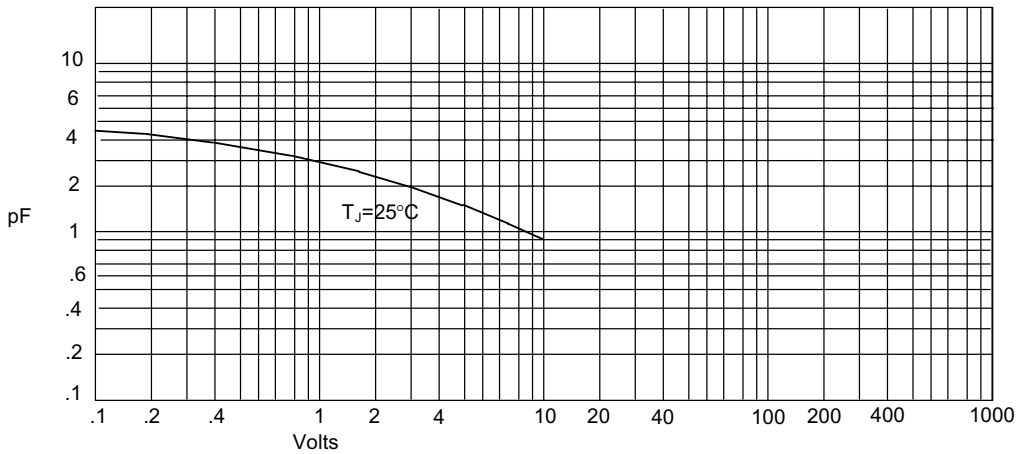
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance

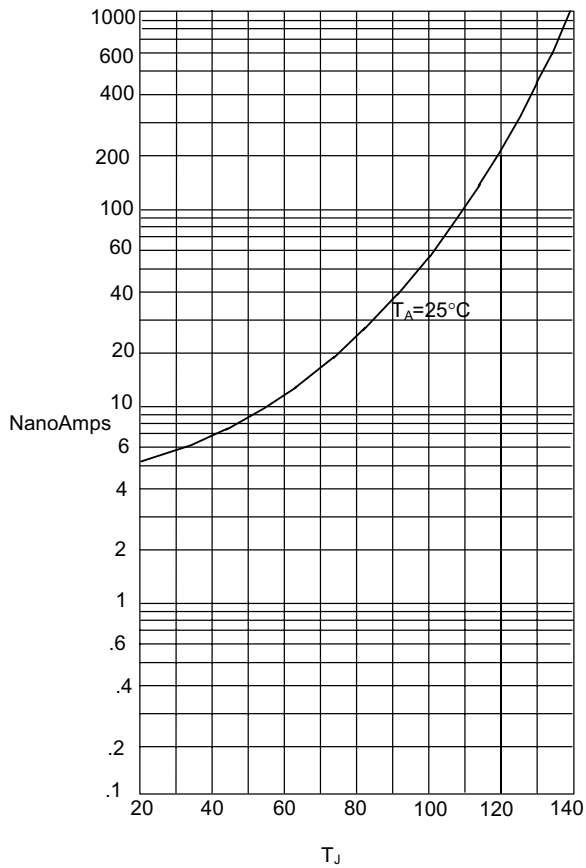


Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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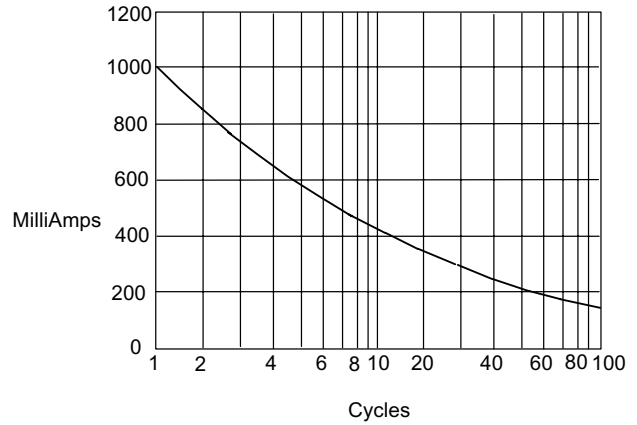


Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus
Junction Temperature - °C

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles



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Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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