

HER251 - HER258

PRV : 50 - 1000 Volts
Io : 2.5 Amperes

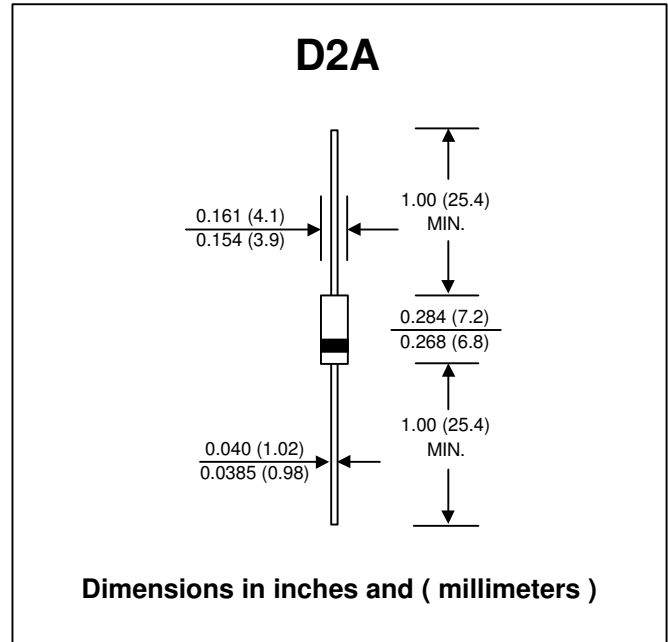
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : D2A Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.645 gram

HIGH EFFICIENT RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

| RATING | SYMBOL | HER 251 | HER 252 | HER 253 | HER 254 | HER 255 | HER 256 | HER 257 | HER 258 | UNIT | |
|---|--------------------|---------------|---------|---------|---------|---------|---------|---------|---------|------|----|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C | I _{F(AV)} | 2.5 | | | | | | | | A | |
| Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method) | I _{FSM} | 100 | | | | | | | | A | |
| Maximum Peak Forward Voltage at I _F = 2.5 A | V _F | 1.1 | | | | | 1.7 | | | | V |
| Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C | I _R | 10 | | | | | | | | μA | |
| | I _{R(H)} | 50 | | | | | | | | μA | |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 50 | | | | | 75 | | | | ns |
| Typical Junction Capacitance (Note 2) | C _J | 50 | | | | | | | | pf | |
| Junction Temperature Range | T _J | - 65 to + 150 | | | | | | | | °C | |
| Storage Temperature Range | T _{STG} | - 65 to + 150 | | | | | | | | °C | |

Notes :

- (1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{dc}

RATING AND CHARACTERISTIC CURVES (HER251 - HER258)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

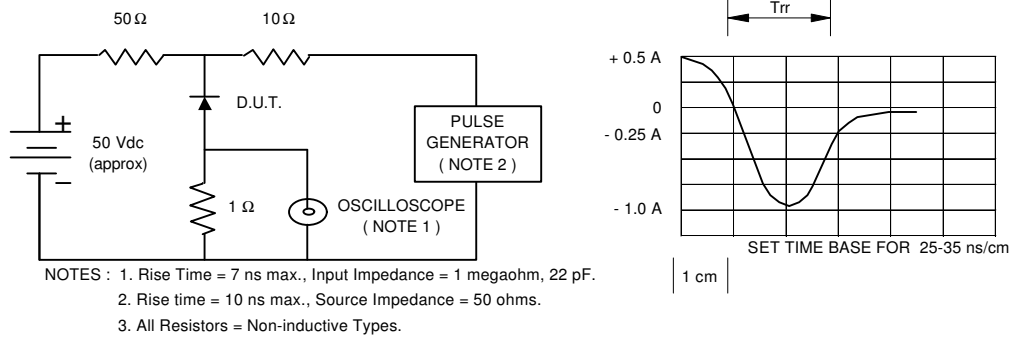


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

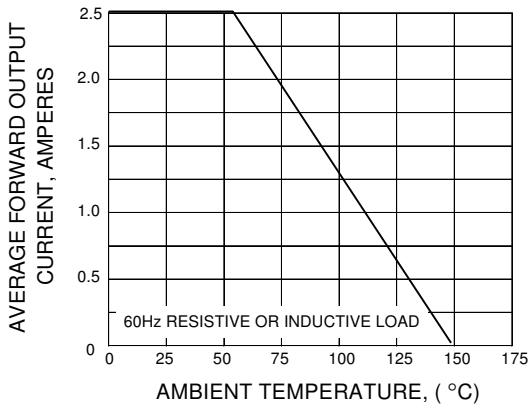


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

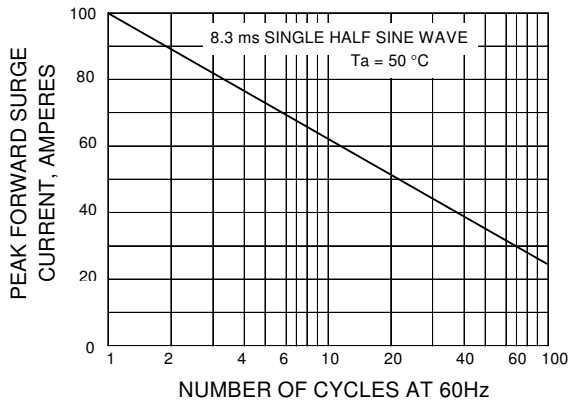


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

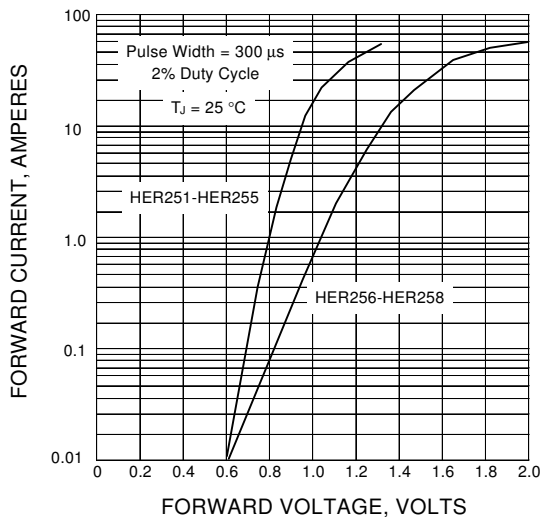


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

