

1A1 ~ 1A7

PRV : 50 - 1000 Volts

Io : 1.0 Ampere

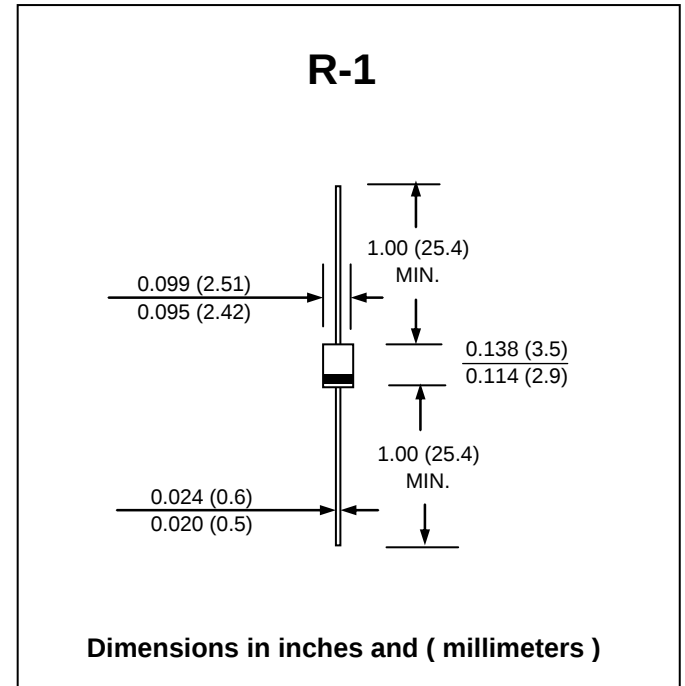
FEATURES :

- * High current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : 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 : 0.20 gram

SILICON RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375" (9.5mm) Lead Length $T_a = 50\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at $I_F = 1.0\text{ A}$.	V_F	1.1							V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$ at rated DC Blocking Voltage $T_a = 100\text{ }^{\circ}\text{C}$	I_R	5.0							μA
	$I_{R(H)}$	50							μA
Typical Junction Capacitance (1)	C_J	15							pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	50							$^{\circ}\text{C/W}$
Junction Temperature Range	T_J	- 65 to + 125							$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150							$^{\circ}\text{C}$

Notes :

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC
- (2) Thermal Resistance from Junction to Ambient 0.375" (9.5mm) Lead Length

RATING AND CHARACTERISTIC CURVES (1A1 - 1A7)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

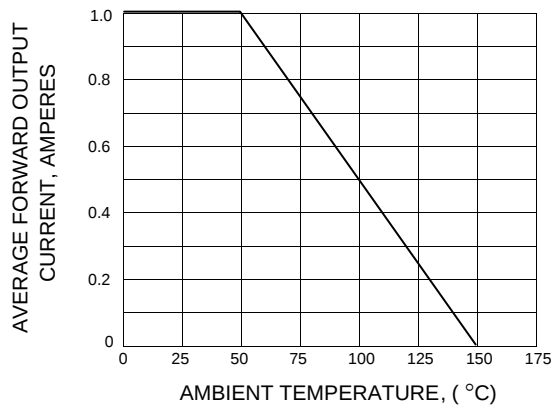


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

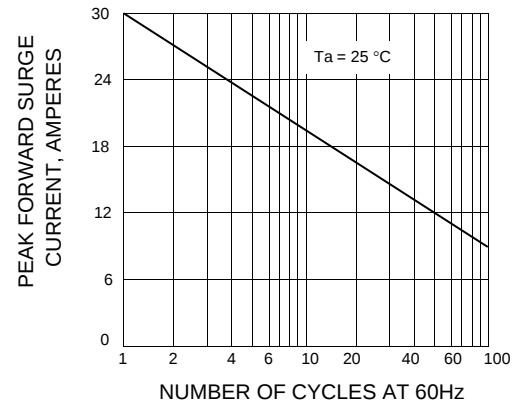


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

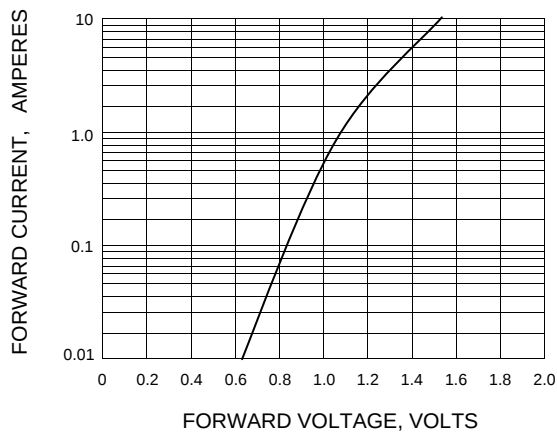


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

