

# 1A1 ~ 1A7

**PRV : 50 - 1000 Volts**

**Io : 1.0 Ampere**

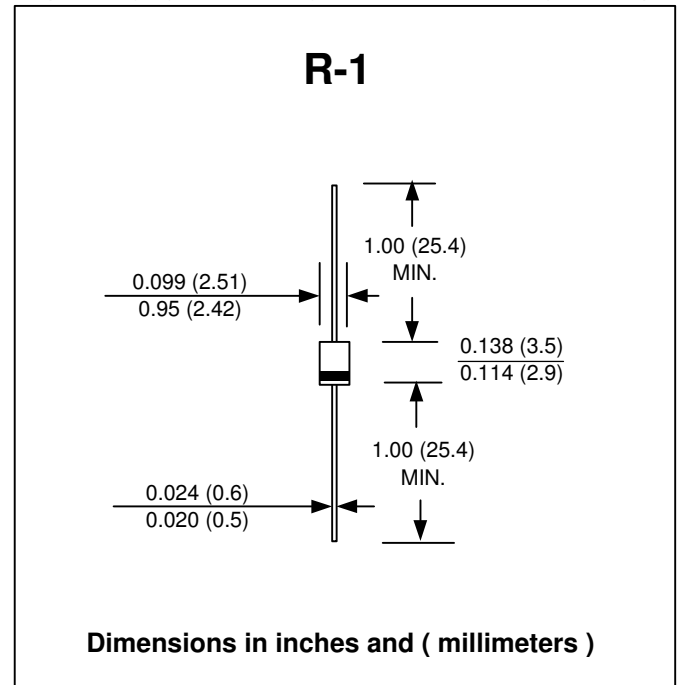
## FEATURES :

- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop

## 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 specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

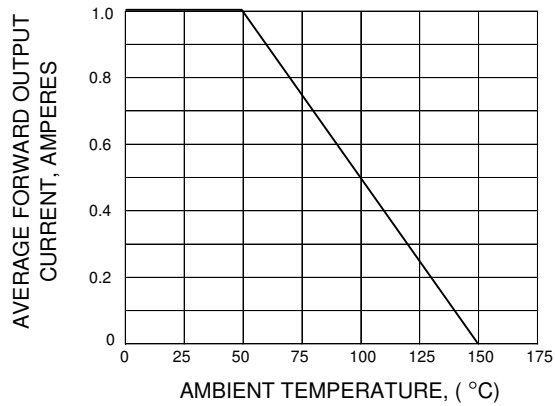
RATING	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead 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							$\mu\text{A}$
	$I_{R(H)}$	50							$\mu\text{A}$
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 :

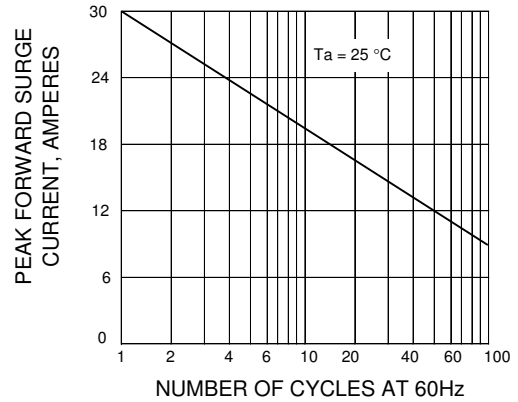
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC
- (2) Thermal Resistance from Junction to Ambient 0.375" (9.5mm) Lead Length

## RATING AND CHARACTERISTIC CURVES ( 1A1 - 1A7 )

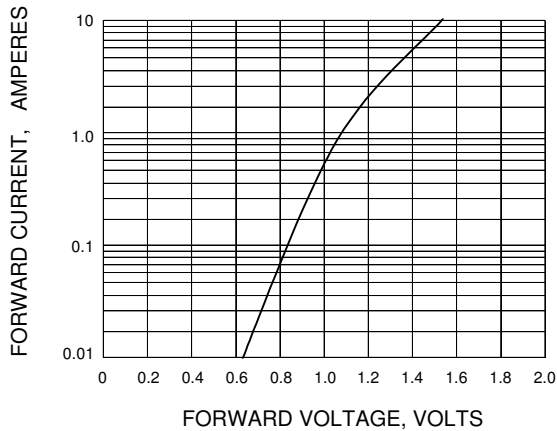
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

