

1A1 THRU 1A7

MINIATURE GENERAL PURPOSE PLASTIC SILICON RECTIFIER

REVERSE VOLTAGE: FORWARD CURRENT:

50 to 1000 VOLTS 1.0 AMPERE

FEATURES

- · Low forward voltage dorp
- · High current capabillty
- · High capabillty
- · High surge current capability
- · Suffix "H" indicates Halogen-free parts, ex. 1A1H

MECHANICAL DATA

Case: Molded plastic, R-1

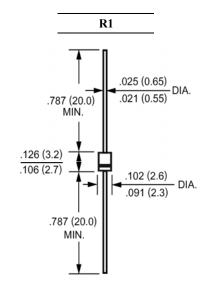
Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202,

method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position : Any



Dimensions in inchs and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbols	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Units
Maximum Recerrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	ī	1.0							A mn
.375"(9.5mm) Lead Length at T A=25°C	$I_{(AV)}$				1.0		Amp		
Peak Forward Surge Current,									
8.3ms single half-sine-wave	I _{FSM} 25.0								Amp
superimposed on rated load (JEDEC method)									
Maximum Forward Voltage	V _F 1.1							Volts	
at 1.0A DC and 25 ℃								voits	
Maximum Reverse Current at T _A =25℃	T	5.0							uAmp
at Rated DC Blocking Voltage T _A =100℃	I _R 50								
Maximum Full Load Reverse Current		100.0							uAmp
Full Cycle Average at T _L =75℃	100.0								uAmp
Typical Junction Capacitance (Note 1)	C_{J}	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60.0							℃/W
Operating Junction Temperature Range	T_{J}	-55 to +150							င
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES:

- 1- Measured at 1.0 MH_z and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

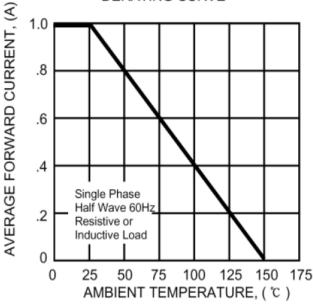


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

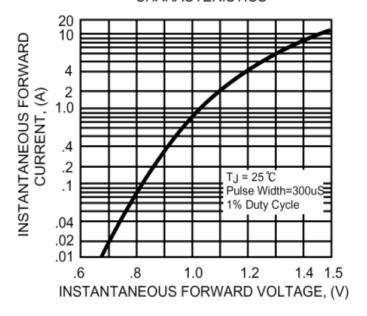
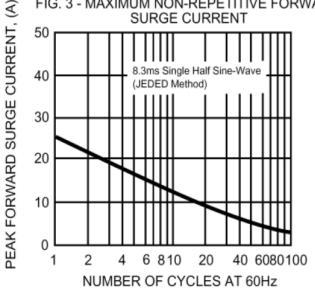


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD FIG. 4 - TYPICAL REVERSE CHARACTERISTICS SURGE CURRENT



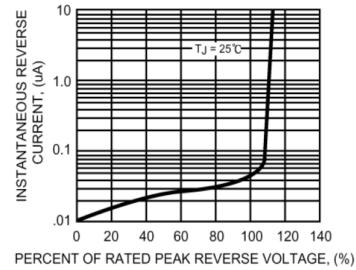


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

