



1A1 THRU 1A9

MINIATURE GENERAL PURPOSE PLASTIC RECTIFIER

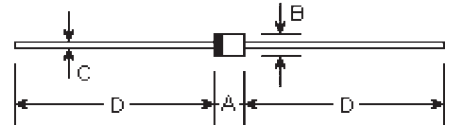
Reverse Voltage - 50 to 1500 Volts

Forward Current - 1.0 Ampere

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High reliability
- Low leakage
- Low forward voltage drop
- High current capability

R-1



Mechanical Data

- **Case:** Molded plastic black body, R-1
- **Lead:** MIL-STD-202E method 208C guaranteed
- **Mounting Position:** Any
- **Weight:** 0.007 ounce, 0.20 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.114	0.138	2.9	3.5	
B	0.095	0.099	2.42	2.51	ϕ
C	0.020	0.024	0.5	0.6	ϕ
D	1.000	-	25.40	-	

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%.

	Symbols	1A1	1A2	1A3	1A4	1A5	1A6	1A7	1A8	1A9	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1250	1500	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	875	1050	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1250	1500	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length $T_A=25^\circ\text{C}$	$I_{(AV)}$	1.0									Amp
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) $T_A=75^\circ\text{C}$	I_{FSM}	30.0									Amps
Maximum instantaneous forward voltage at 1.0A DC	V_F	1.1									Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	5.0 100.0									μA
Typical junction capacitance (Note 1)	C_J	25.0									μF
Typical thermal resistance	$R_{\theta JA}$	60.0									$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_{STG}	-55 to +150									$^\circ\text{C}$

Note:

(1) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES

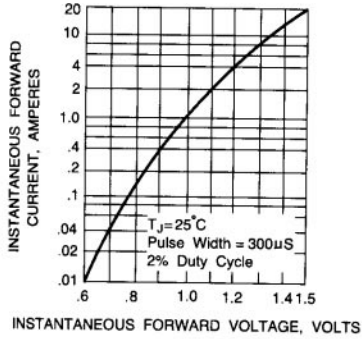


Fig. 1 - TYPICAL FORWARD CHARACTERISTICS

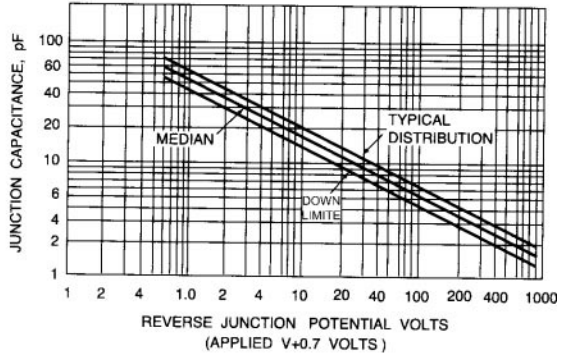


Fig. 2 - JUNCTION CAPACITANCE (See Application Note 2)

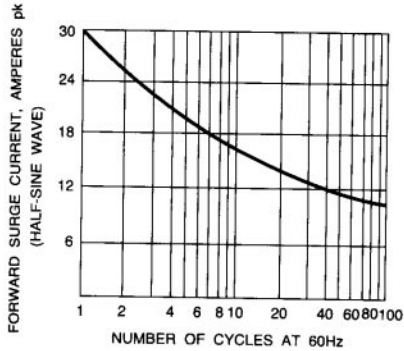


Fig. 3 - MAXIMUM OVERLOAD SURGE-CURRENT

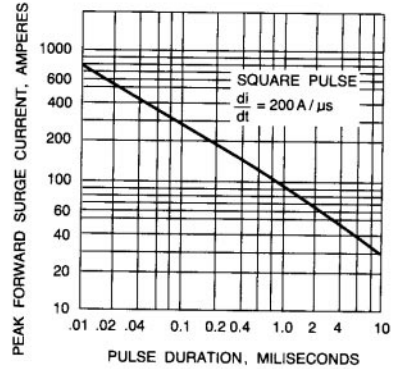


Fig. 4 - PEAK FORWARD SURGE CURRENT

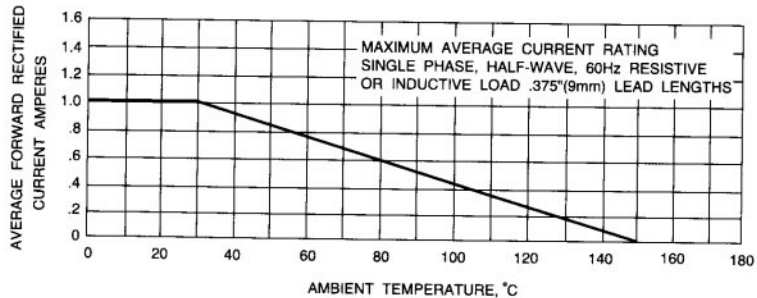


Fig. 5 - FORWARD DERATING CURVE