

# 1A1 THRU 1A7

## 1 Amp Miniature Plastic Silicon Rectifier 50 to 1000 Volts

### Features

- High Reliability
- Low Leakage
- Low Forward Voltage Drop
- Exceeds Environmental Standards of MIL-S-19500/228
- Case: Molded plastic black body, R-1
- Epoxy: UL 94V-O rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Polarity: Indicated by Cathode Band

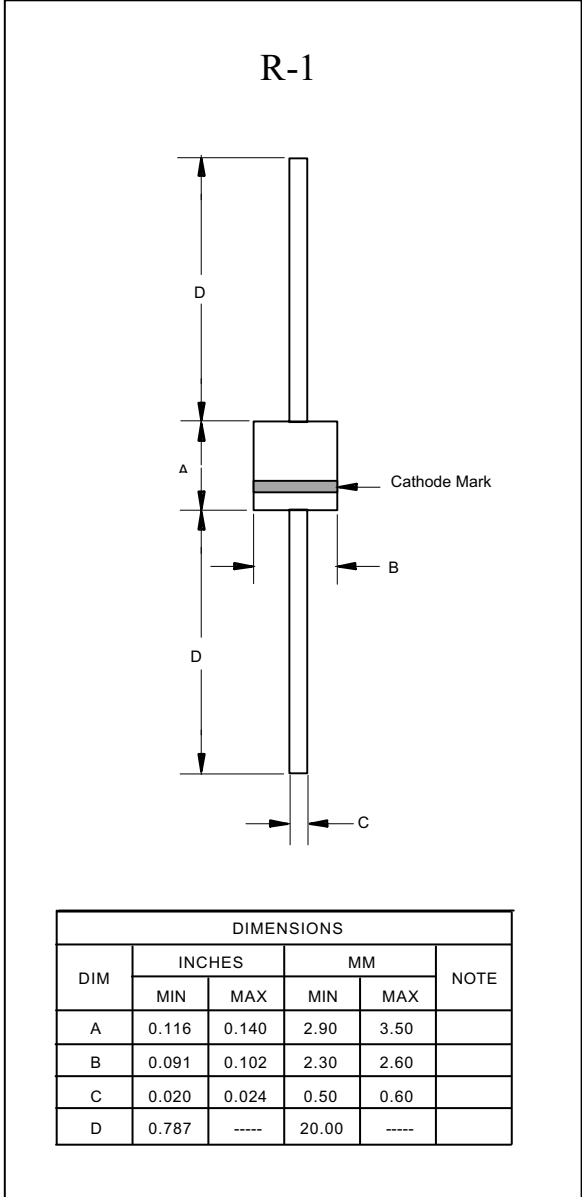
### Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 60°C/W Junction to Ambient

Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1A1	----	50V	35V	50V
1A2	----	100V	70V	100V
1A3	----	200V	140V	200V
1A4	----	400V	280V	400V
1A5	----	600V	420V	600V
1A6	----	800V	560V	800V
1A7	----	1000V	700V	1000V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_J=25^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30.0A	8.3ms half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM}=1.0A$ $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0uA 500uA	$T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured at 1.0MHz, $V_R=4.0V$



**Note:** 1. Valid provided that electrodes are kept at ambient temperature

# 1A1 thru 1A7

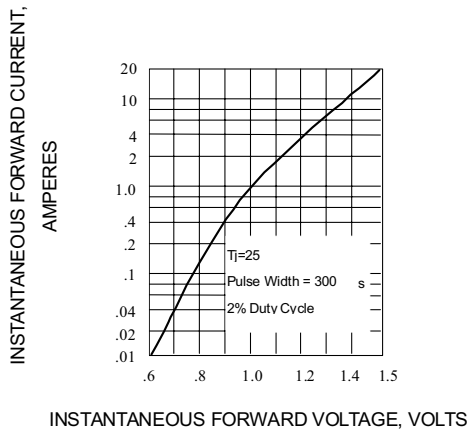


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

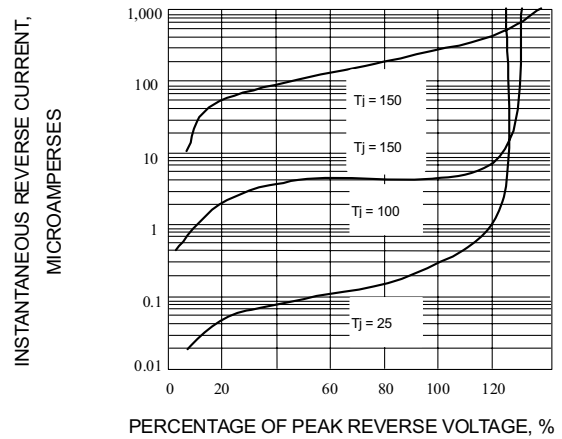


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

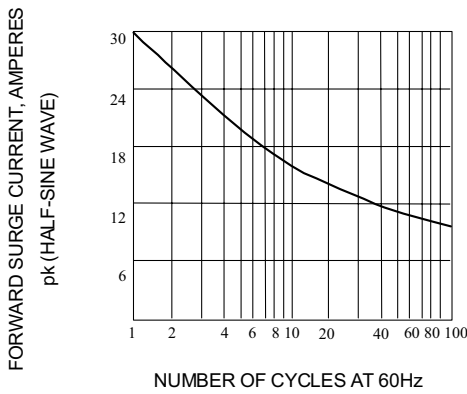


Fig. 3-MAXIMUM OVERLOAD SURGE-CURRENT

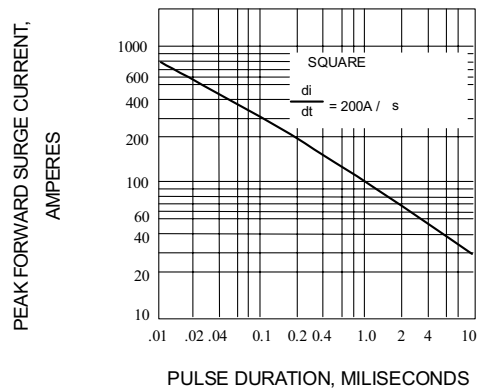


Fig. 4-PEAK FORWARD SURGE CURRENT

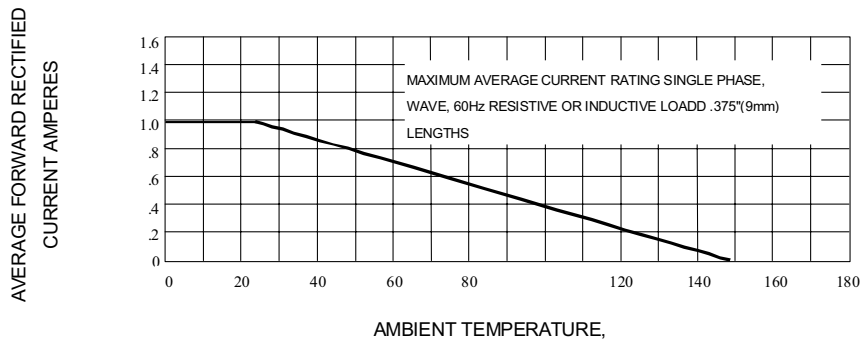


Fig. 5-FORWARD DERATING CURVE