

# 1A1 THRU 1A7

General Purpose Plastic Rectifier

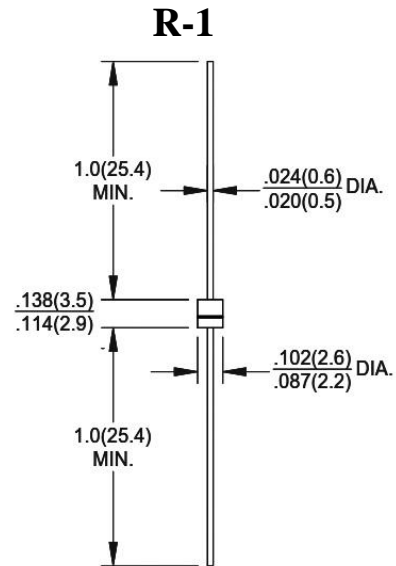
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 1.0 Ampere

## FEATURES

- ◆ Low forward voltage drop
- ◆ Low leakage current
- ◆ High forward surge capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length at  
5 lbs(2.3kg) tension

## Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL94V-0 rate flame retardant
- ◆ Polarity: Color band denotes cathode end
- ◆ Lead: Plated axial lead, solderable per  
MIL-STD-202E method 208C
- ◆ Mounting position: Any



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNIT
Maximum Recurrent 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 at $T_A=25^\circ C$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current $T_A=25^\circ C$ at rated DC Blocking voltage $T_A=100^\circ C$	$I_R$	5.0 100							$\mu A$
Typical Junction Capacitance (NOTE 1)	$C_J$	25							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	60							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ C$

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at .375"(9.5mm) lead length, P.C. board mounted.

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## RATING AND CHARACTERISTIC CURVES 1A1 THRU 1A7

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

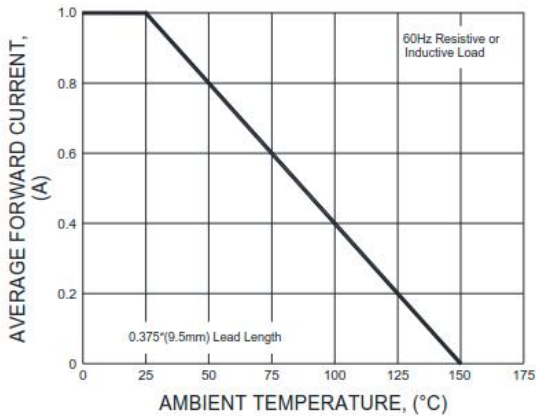


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

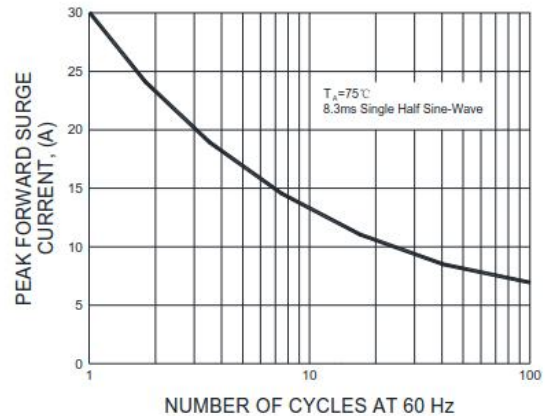


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

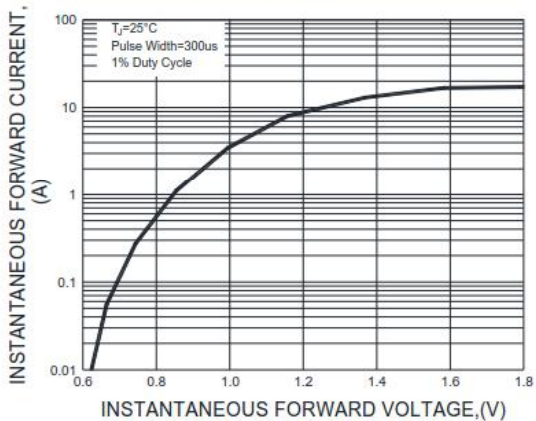


FIG.4-TYPICAL REVERSE CHARACTERISTICS

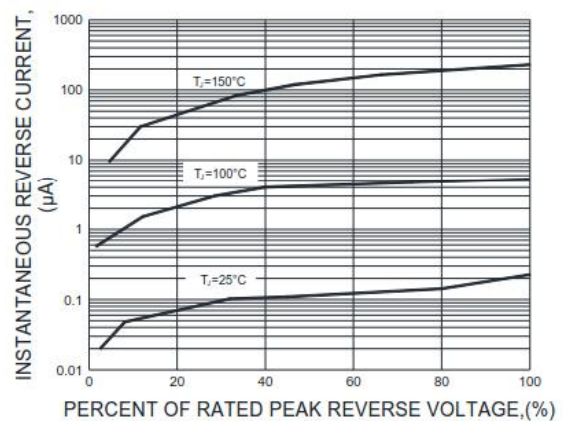
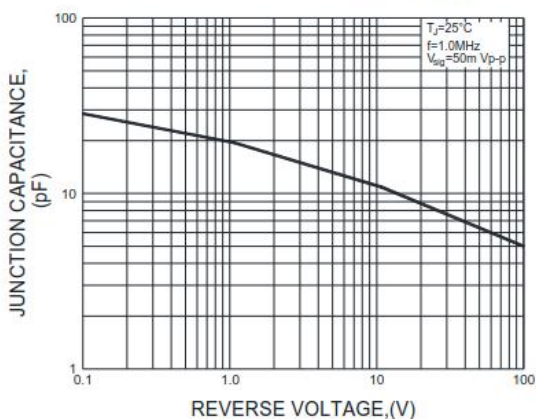


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.