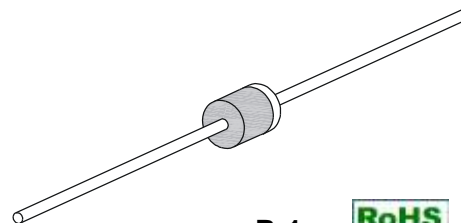


General Purpose Silicon Rectifier

Features

- Low forward voltage drop
- Low leakage current
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds
/.0375" (9.5mm) lead length at 5lbs (2.3kg) tension
- RoHS Compliant



R-1



Mechanical Data

Case:	Molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Plated axial leads, solderable per MIL-STD-202E, Method 208C
Polarity:	Cathode indicated by color band
Mounting position:	Any
Weight:	0.19 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Unit	Conditions
VRRM	Max. Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max. RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max. DC Blocking Voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Max. Average Rectified Current	1.0							A	.375"(9.5mm) lead length @ TA =50°C (note 1)
IFSM	Peak Forward Surge Current	45							A	8.3 ms single half sine-wave superimposed on rated load
TJ	Operating Junction Range	-55 to 125							°C	
TSTG	Storage Temperature Range	-55 to 150							°C	

General Purpose Silicon Rectifier

1A1 - 1A7

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Unit	Conditions
V_F	Max. Instantaneous Forward Voltage	1.0							V	$I_{F(AV)}=1.0A$
C_J	Typical Junction Capacitance	15							pF	Measured at 1MHZ and Applied Reverse Voltage of 4 Volts DC
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	$T_A=25^{\circ}C$
		50							μA	$T_A=100^{\circ}C$
$R_{\theta-JA}$	Max. Thermal Resistance	50							$^{\circ}C/W$	note 2

- Note:**
- 60Hz, resistive or inductive load. Derate current by 20% for capacitive load
 - Thermal resistance from junction to ambient at .375" (9.5mm) lead length. PCB mounted with copper pad area of 0.2" x 0.2" (5x5mm)

Typical Characteristics Curves

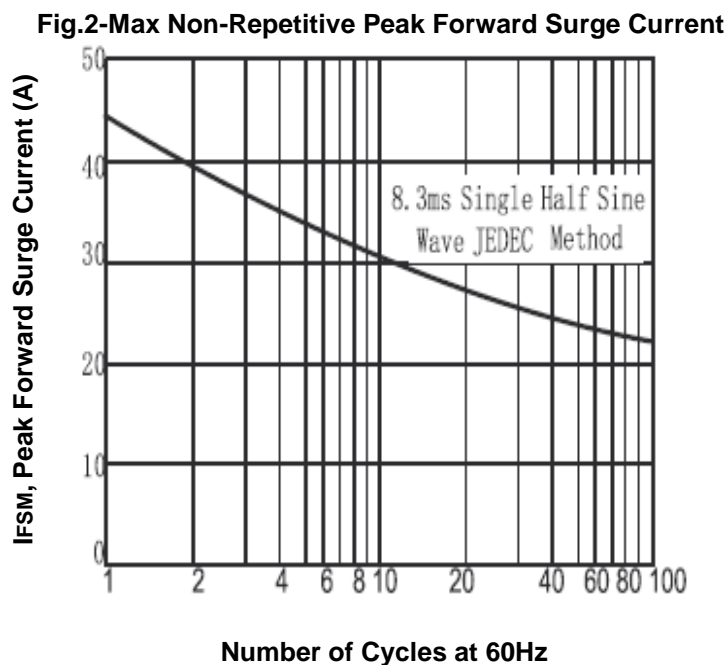
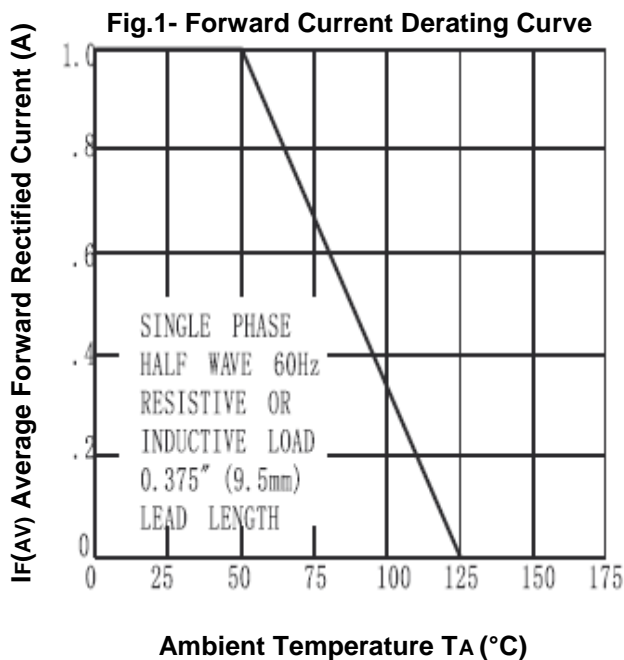


Fig.3- Typical Instantaneous Forward Characteristics

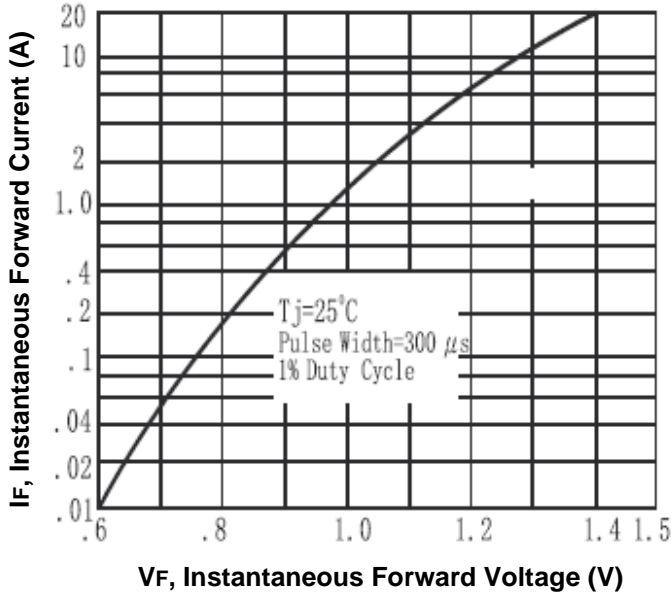


Fig.4-Typical Junction Capacitance

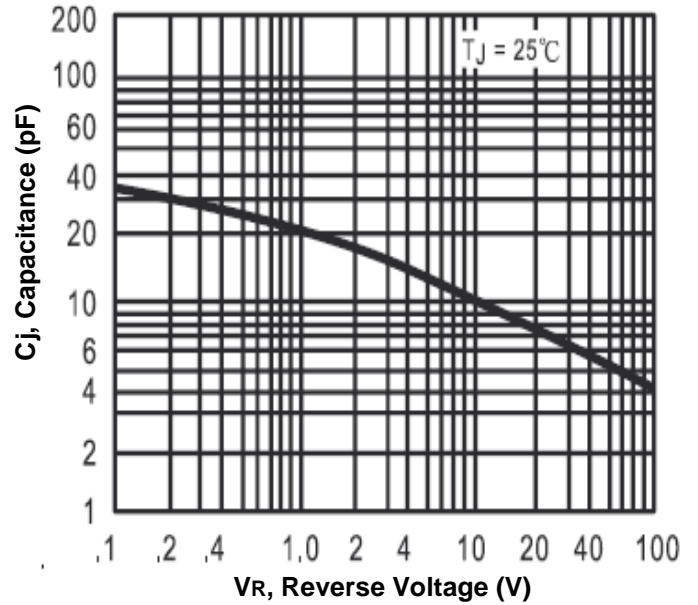
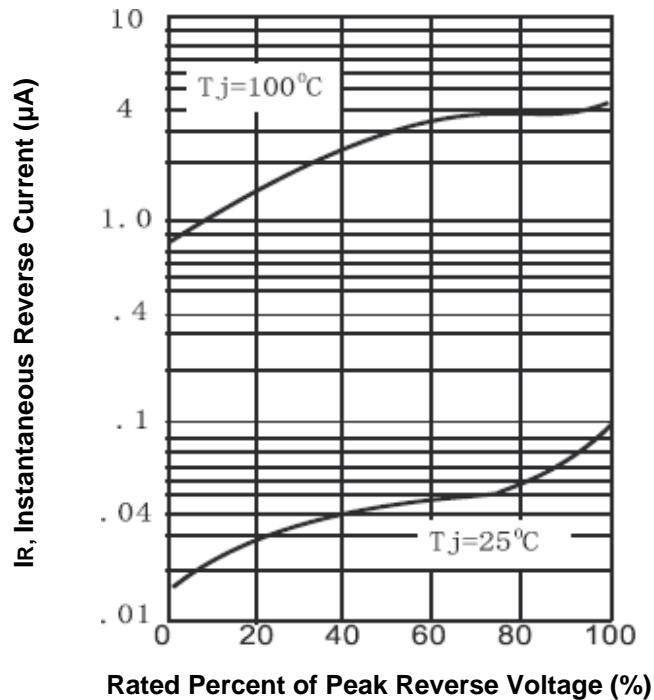
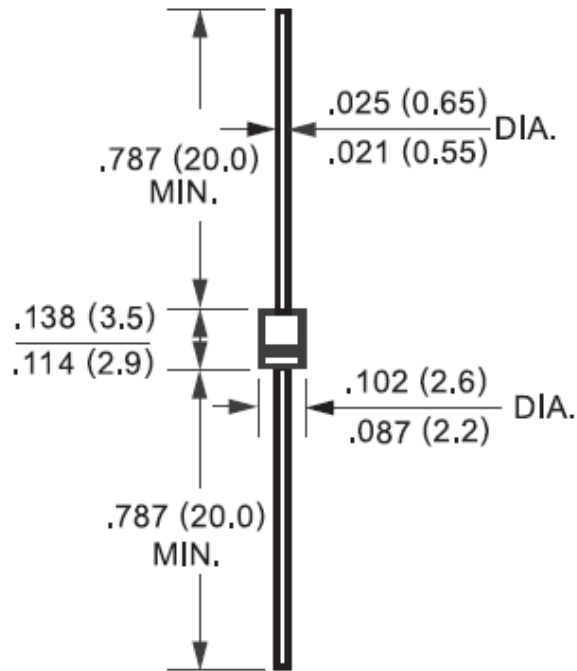


Fig.5-Typical Reverse Characteristics



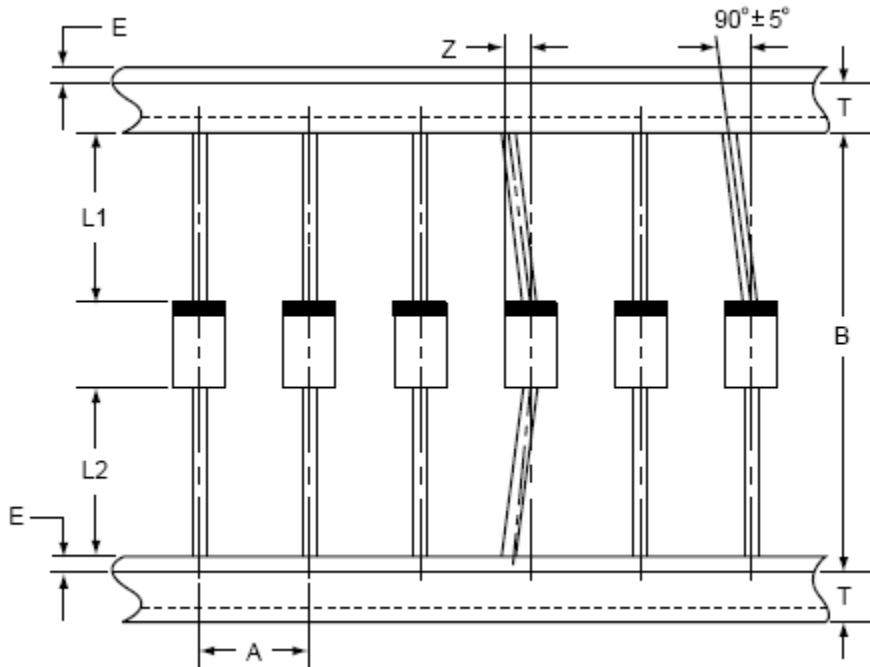
Dimensions in inch (mm)



R-1

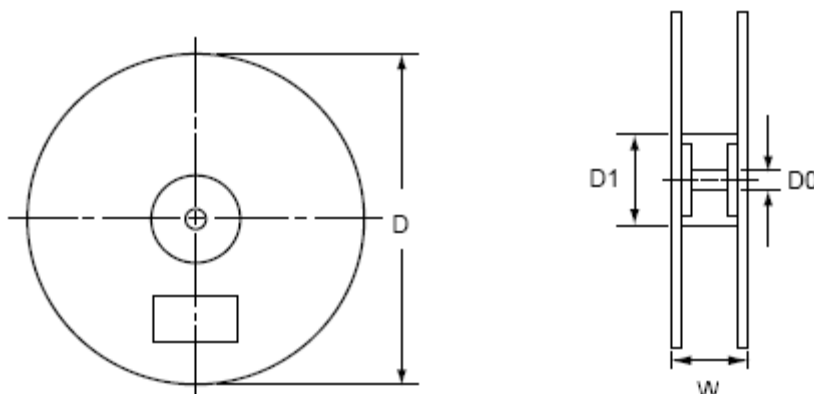
Packing Information:

Tape Dimensions (in mm) Loaded quantity 5000 PCS per reel



Components Outline	A	B	L1 - L2	T	E	Z
R-1	5.0 ± 0.5	52.4 ± 1.5	Max.1.0	6 ± 0.4	Max.0.8	Max.1.2

Reel Dimensions (in mm)



D	D0	D1	W
330.0 ± 2.0	16.6 ± 0.4	85.7 ± 5.0	79.0 ± 1.0

Carton Information

PCS per Carton	Carton Size
20000	360X350X345 (in mm)

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