Technical Data
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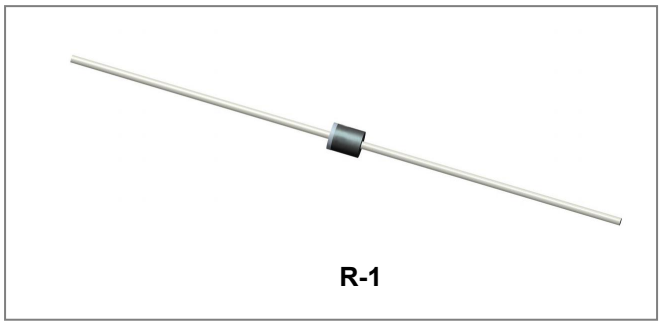
1E1G THRU 1E8G

1.0 AMP. Glass Super Fast Rectifiers



R-1

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL 94V- flammability 0
- Terminals finish: 100% Pure Tin
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: Molded plastic R-1
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Lead Free: For RoHS/Lead Free Version

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	1E1G	1E2G	1E3G	1E4G	1E5G	1E6G	1E8G	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V_{RRM} V_{DC}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Average Rectified Output Current (Note 1) @T_L=75℃	$I_{(AV)}$	1.0							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	2.594							A^2s
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	0.95				1.25		1.7	V
Maximum DC reverse current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	5.0 100							μA
Maximum reverse recovery time (Note 2)	t_{rr}	35							ns
Typical Junction Capacitance (Note 3)	C_J	30				25			pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	40							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Reverse recovery condition IF=0.5A, IR=1.0A, Irr=0.25A
3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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RoHS

Ratings and Characteristics Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

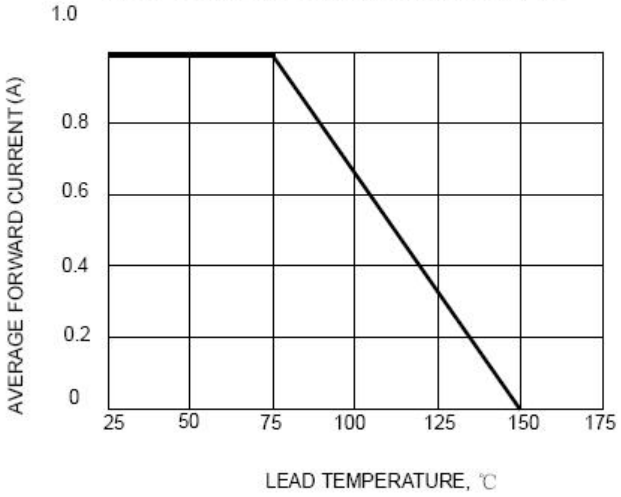


FIG.2-TYPICAL FORWARD CHARACTERISTICS

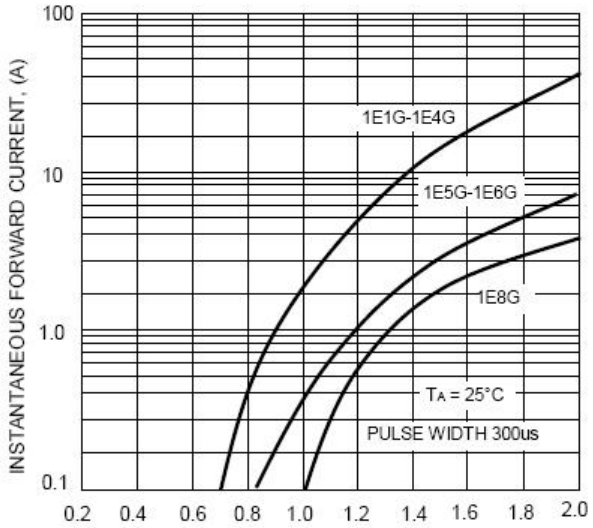


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

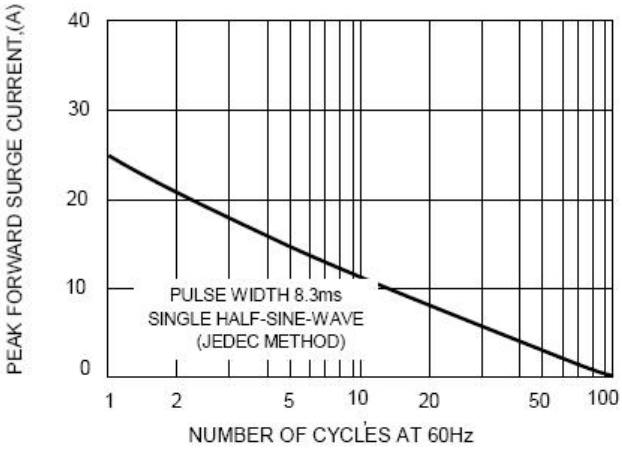
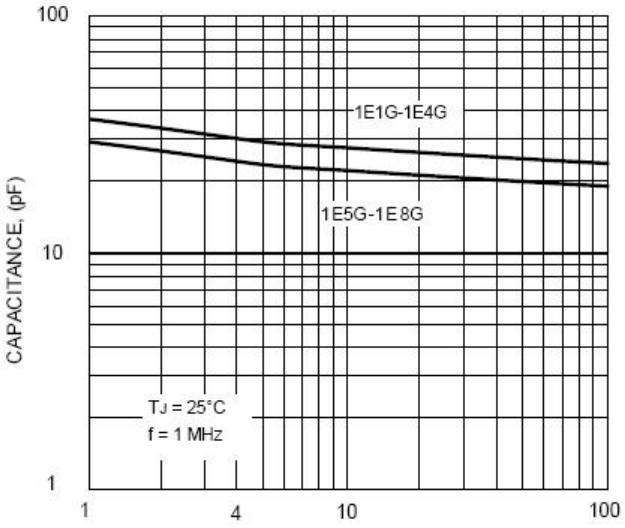


FIG.4 – TYPICAL JUNCTION CAPACITANCE



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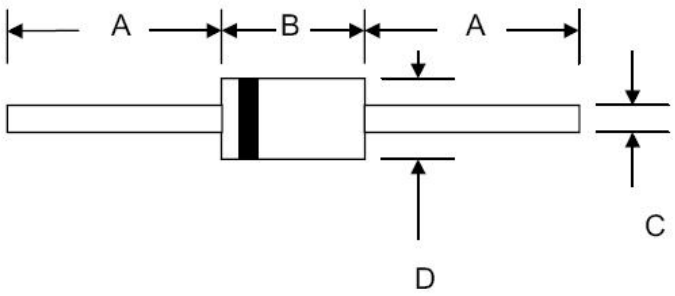
RoHS

Mechanical Dimensions R-1



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	2.9	3.5	0.114	0.140
C	0.55	0.65	0.021	0.025
D	2.3	2.6	0.091	0.102

Ordering Information

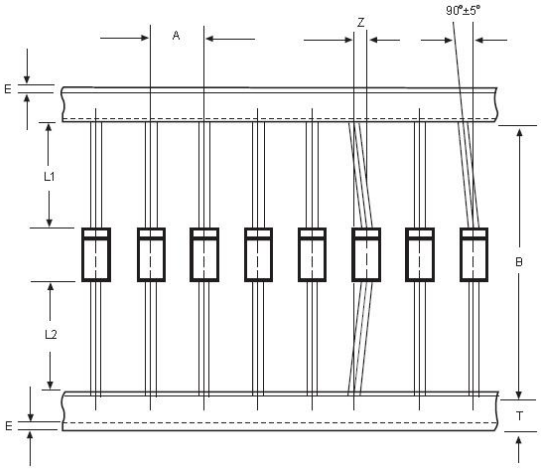
Device	Package	Shipping
1E1G-1E8G	R-1(Pb-Free)	5000pcs / tape
1E1GTA-1E8GTA	R-1(Pb-Free)	5000pcs / tape
1E1GTR-1E8GTR	R-1(Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

1E1G = Part Name

Carrier Tape Specification R-1



SYMBOL	Millimeters	
	Min.	Max.
A	9.5	10.5
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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