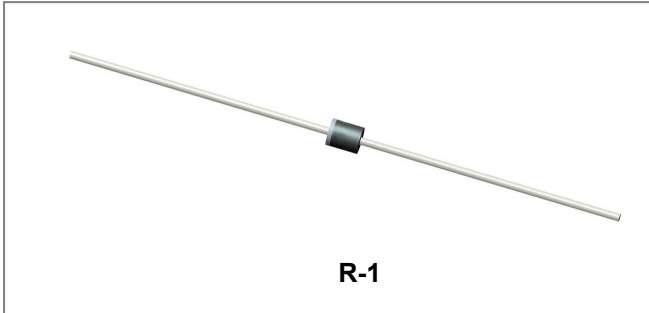


1E1G THRU 1E8G

1.0 AMP. Glass Super Fast Rectifiers



Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL 94V- flammability 0
- 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 dented 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°C	I _(AV)	1.0							A	
I _{2t} Rating for Fusing (t < 8.3ms)	I ² t	2.594							A ² s	
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 _{θJA}	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.

Ratings and Characteristics Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

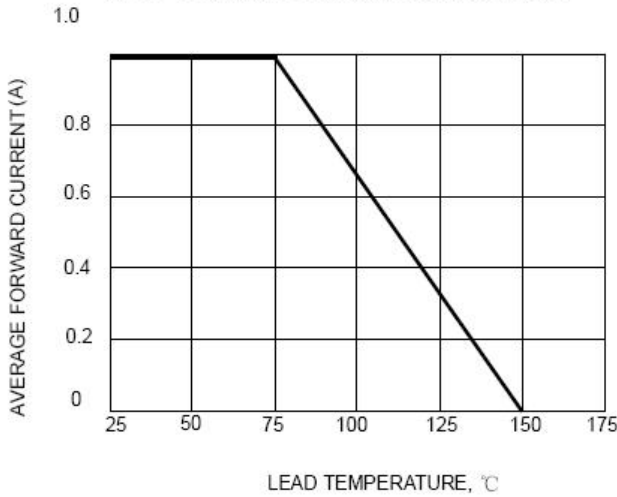


FIG.2-TYPICAL FORWARD CHARACTERISTICS

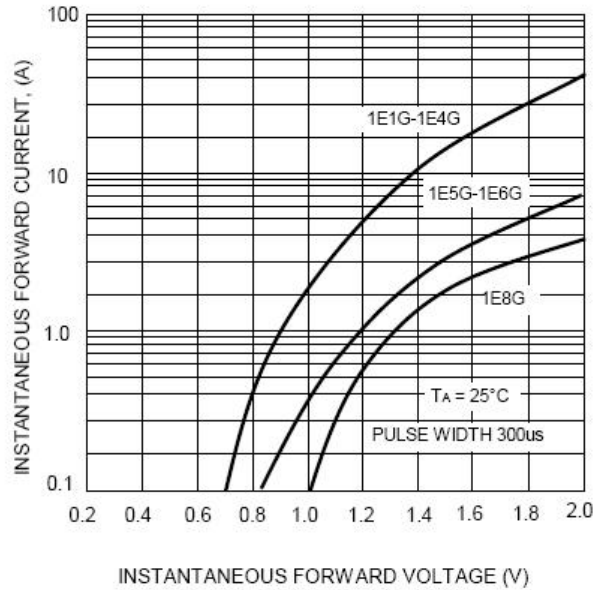


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

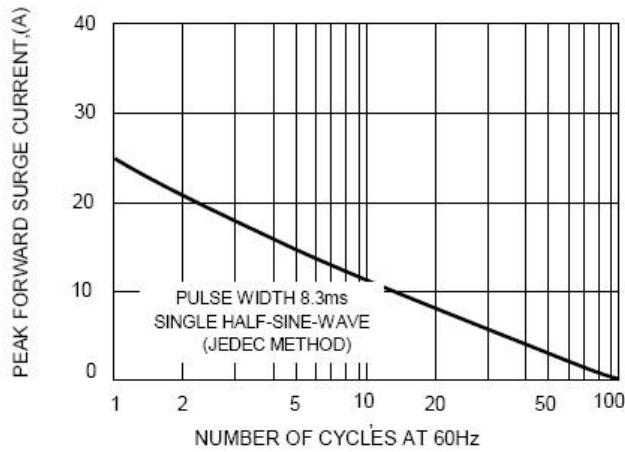
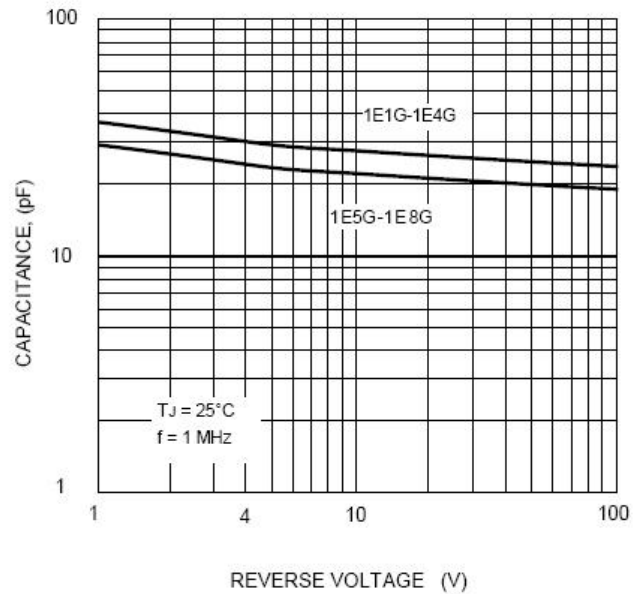
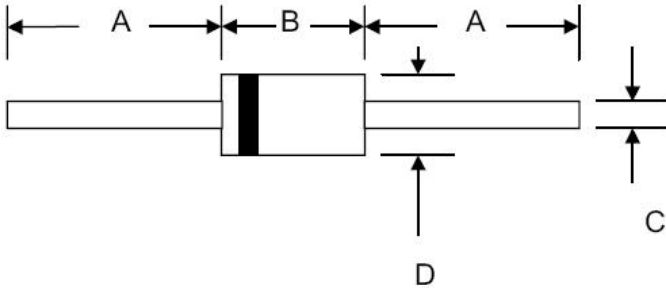


FIG.4 – TYPICAL JUNCTION CAPACITANCE



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-1E18G	R-1 (Pb-Free)	5000pcs / tape

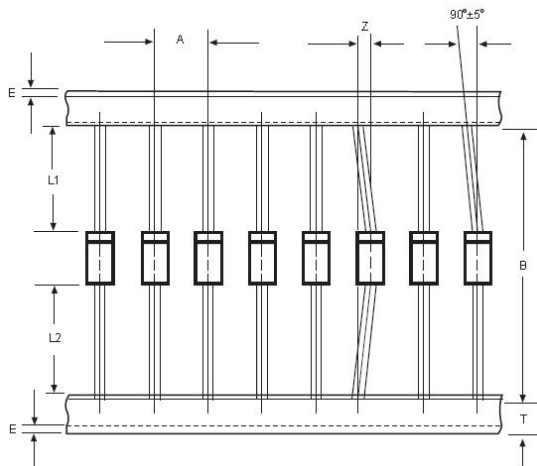
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

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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