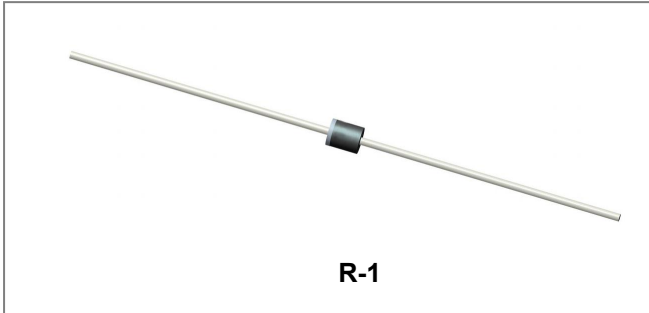


## 1E1G THRU 1E8G

### 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<sub>A</sub>=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 <sub>RRM</sub> V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
Average Rectified Output Current (Note 1) @T <sub>L</sub> =75°C	I <sub>(AV)</sub>	1.0							A
I <sub>2t</sub> Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	2.594							A <sup>2</sup> s
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25.0							A
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.95			1.25		1.7		V
Maximum DC reverse current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0			100				µA
Maximum reverse recovery time (Note 2)	t <sub>rr</sub>	35							ns
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	30			25				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	40							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-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

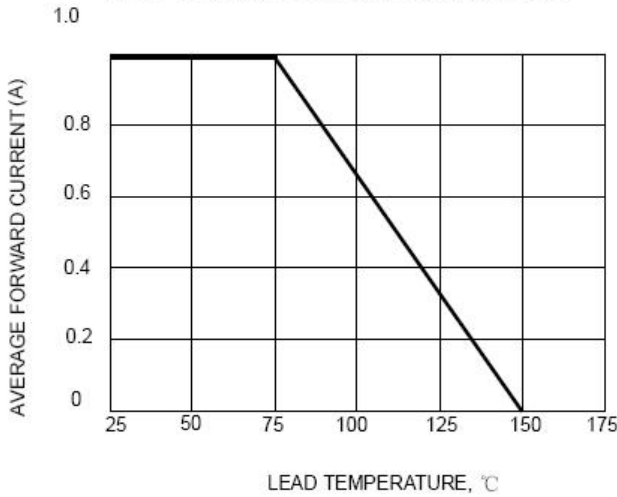


FIG.2-TYPICAL FORWARD CHARACTERISTICS

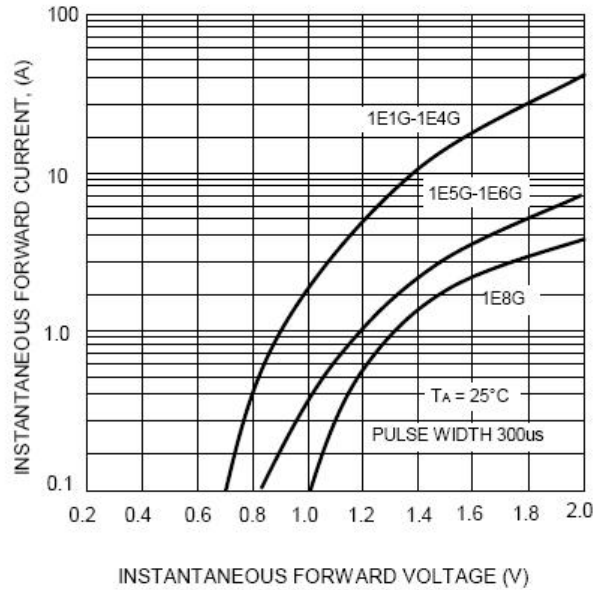


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

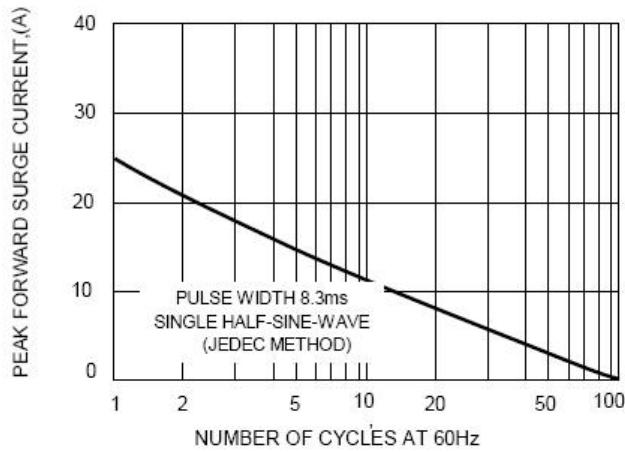
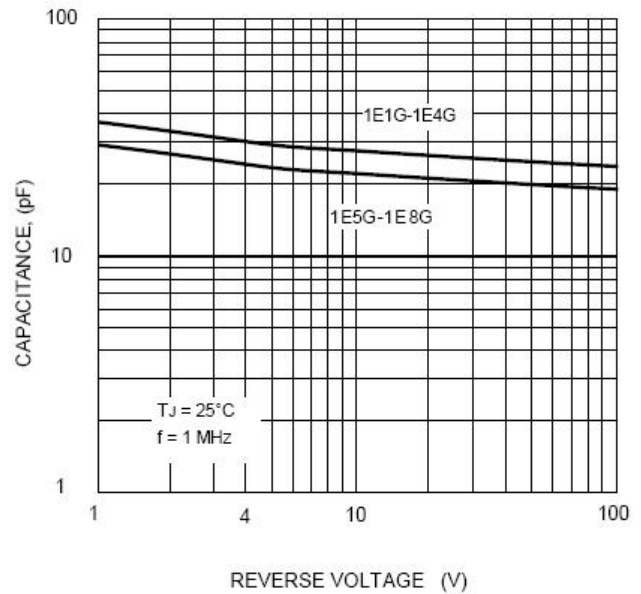
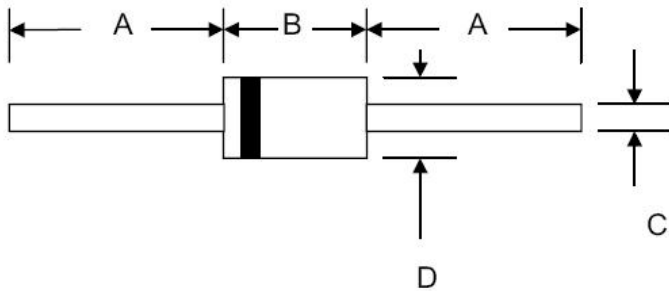


FIG.4 – TYPICAL JUNCTION CAPACITANCE



**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**

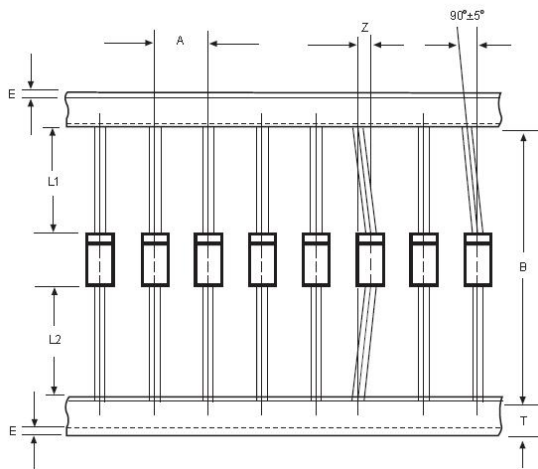


Where XXXXX is YYWWL

- 1E1G = Part Name
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

Cautions: Molding resin  
Epoxy resin UL:94V-0

**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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