



RUSH

50ns ULTRA-FAST RECOVERY  
HIGH -VOLTAGE RECTIFIER DIODES

- PRV to 5,000 Volts
- 50ns ultra-fast recovery
- Small size
- Exceptionally low leakage
- High surge capability
- Avalanche characteristics



PRV	3000	4000	5000
EDI type	RUSH103	RUSH104	RUSH105

ELECTRICAL CHARACTERISTICS (at  $T_A = 25^\circ\text{C}$  Unless Otherwise Specified)

Average Rectified Forward Current @ $50^\circ\text{C}$ , $I_o$ (Fig.1)	200 mA
Max. Peak Surge Current, $I_{FSM}$ (8.3ms)	8 Amp
Max. Reverse Recovery, $T_{rr}$ , Fig.4	50ns
Max. Forward Voltage Drop @ 200 mA, $V_F$	15 Volts
Max. DC Reverse Current @ PRV and $25^\circ\text{C}$ , $I_R$	1 $\mu\text{A}$
Max. DC Reverse Current @ PRV and $100^\circ\text{C}$ , $I_R$	25 $\mu\text{A}$
Ambient Operating Temperature Range, $T_A$	-55 to +150 $^\circ\text{C}$
Storage Temperature Range, $T_{STG}$	-55 to +150 $^\circ\text{C}$

NOTES:

- 1.It is recommended that a proper heat sink be used on the terminals of this device between the body and soldering point to prevent damage from excess heat.
- 2.If operated over 10,000v/inch in length, devices should be immersed in oil or re - encapsulated.

EDI reserves the right to change these specifications at any time without notice.

FIG.1

OUTPUT CURRENT vs AMBIENT TEMPERATURE

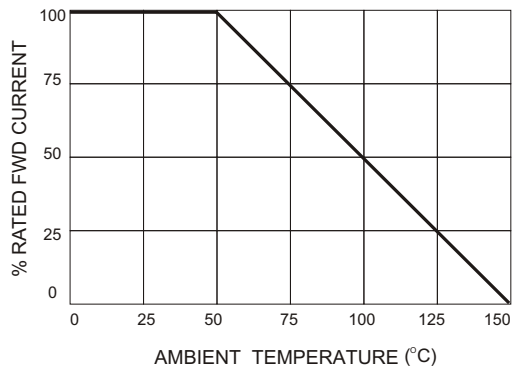


FIG.2

NON-REPETITIVE SURGE CURRENT

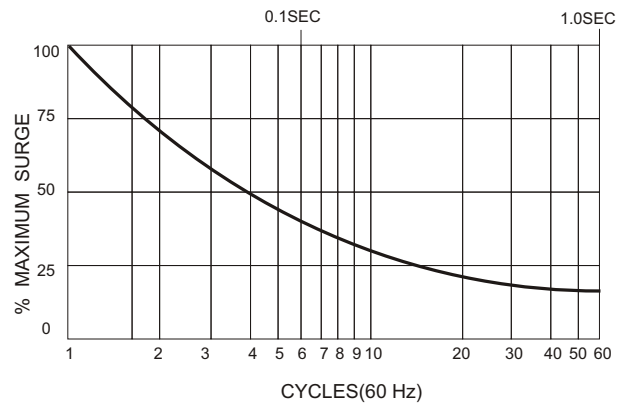
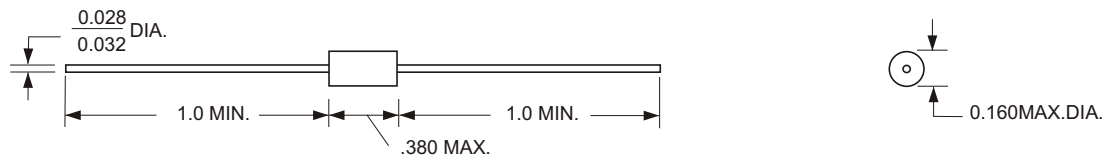


FIG.3

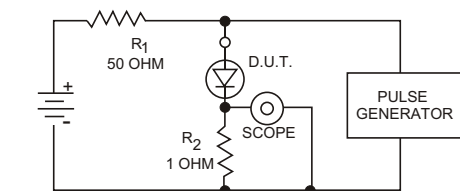
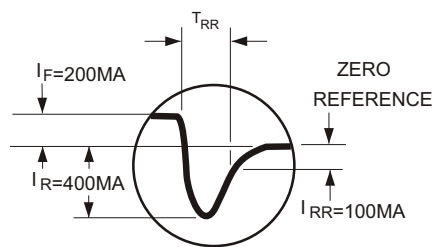


ALL DIMENSIONS IN INCHES

Maximum lead and terminal temperature for soldering, 3/8 inch form case, 5 seconds at 250°C

FIG.4  
TEST CIRCUIT

TYPICAL REVERSE RECOVERY WAVEFORM



R<sub>1</sub>, R<sub>2</sub> NON-INDUCTIVE RESISTORS  
PULSE GENERATOR-HEWLETT PACKARD 214A OR EQUIV.  
1KC REP.RATE, 10 μ SEC. PULSE WIDTH  
ADJUST PULSE AMPLITUDE FOR PEAK I<sub>R</sub>

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