



RUST

50ns ULTRA-FAST RECOVERY  
HIGH VOLTAGE RECTIFIER DIODES

- PIV to 10,000 Volts
- 50ns ultra-fast recovery
- Small size
- Exceptionally low leakage
- High surge capability
- Avalanche characteristics



PRV	8 KV	10KV
EDI SERIES	RUST2008	RUST2010

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

Average Rectified Forward Current @ $50^\circ\text{C}$ , $I_o$ (Fig1)	100 mA
Max. Peak Surge Current, $I_{FSM}$ (8.3ms) (Fig.2)	5 Amp
Max. Reverse Recovery, $T_{rr}$ , Fig.4	50ns
Max. Forward Voltage Drop @ 100 mA, $V_F$	26 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.

# RUST

FIG.1

OUTPUT CURRENT vs AMBIENT TEMPERATURE

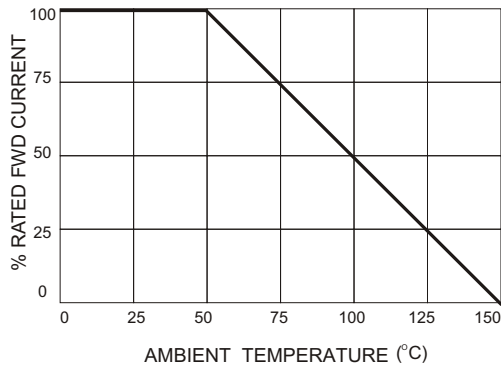


FIG.2

NON-REPETITIVE SURGE CURRENT

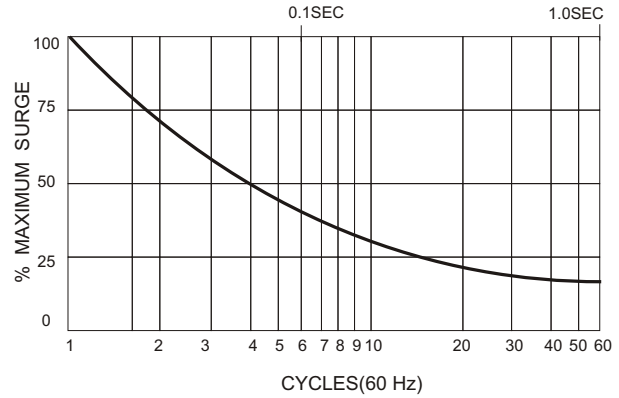
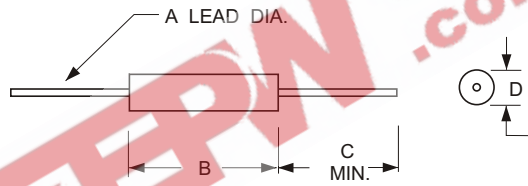


FIG.3

MECHANICAL Leads - solid silver

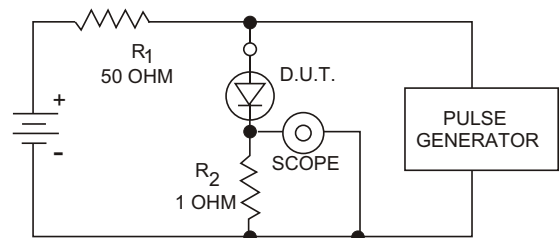
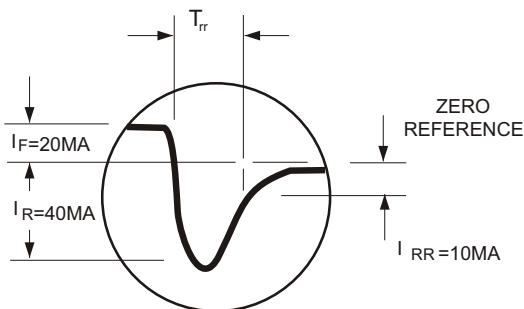


	INCHES	MM
A	0.02	0.5
B	0.60	15.2
C	0.50	12.7
D	0.16	4.0

TEST CIRCUIT

FIG.4

TYPICAL REVERSE RECOVERY WAVEFORM



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