

50 and 75ns ULTRA-FAST RECOVERY AXIAL LEAD RECTIFIER DIODES

PRV to 1000 V

50 to 75ns recovery

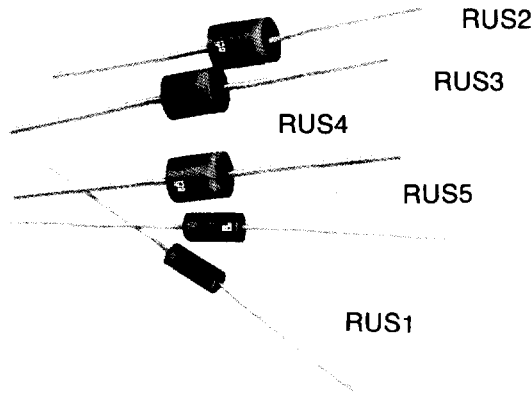
Small size

High temperature stability

High surge capability

Exceptionally low leakage

Avalanche characteristics



PRV	50V	100V	200V	400V	600V	800V	1000V
RUS 1	RUS105	RUS110	RUS120	RUS140	RUS160	RUS180	RUS1100
RUS 2	RUS205	RUS210	RUS220	RUS240	RUS260	RUS280	RUS2100
RUS 3	RUS305	RUS310	RUS320	RUS340	RUS360	RUS380	RUS3100
RUS 4	RUS405	RUS410	RUS420	RUS440	RUS460	RUS480	RUS4100
RUS 5	RUS505	RUS510	RUS520	RUS540	RUS560	RUS580	RUS5100

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

	RUS 1		RUS 2		RUS 3		RUS 4		RUS-5		UNITS
	50-600V	800-1000V	50-600V	800-1000V	50-600V	800-1000V	50-600V	800-1000V	50-600V	800-1000V	
Average Rectified Forward Current, I_O @ 80°C Lead Temperature, $L = \frac{3}{8}$ " (Fig. 1)	1.5	1	3.5	3	5	4	5	4	2	1.5	Amps
Max. DC Reverse Current @ PRV and 25°C , I_R	1	1	5	5	5	5	5	5	5	5	μA
Max. DC Reverse Current @ PRV and 100°C , I_R	50	50	100	100	100	100	100	100	100	100	μA
Max. Peak Surge Current, I_{FSM} (8.3 μsec) (Fig. 2)	50	50	100	75	240	175	320	250	100	75	Amps (pk)
Max. Forward Voltage Drop @ 25°C , V_F with Forward Current pulse I_F (300 μsec width)	1.3 1	1.75 1	1.3 3	1.75 3	1.3 4	1.75 4	1.3 5	1.75 5	1.3 2	1.75 2	Volts Amps
Reverse Recovery Time, t_{rr} (Fig. 4)	50	75	50	75	50	75	50	75	50	75	nsec.
Ambient Operating Temperature Range, T_A	-55 to +150 $^\circ\text{C}$										
Storage Temperature Range, T_{STG}	-55 to +150 $^\circ\text{C}$										



ELECTRONIC DEVICES, INC.

21 GRAY OAKS AVENUE • YONKERS, NEW YORK 10710
914-965-4400 • FAX 914-965-5531 • 1-800-678-0828



FIG. 1
OUTPUT CURRENT VS LEAD TEMPERATURE

RESISTIVE OR INDUCTIVE LOAD $f = 60\text{Hz}$ RECTIFIER
LEADS ATTACHED TO HEAT SINKS AT LEAD LENGTH (L)

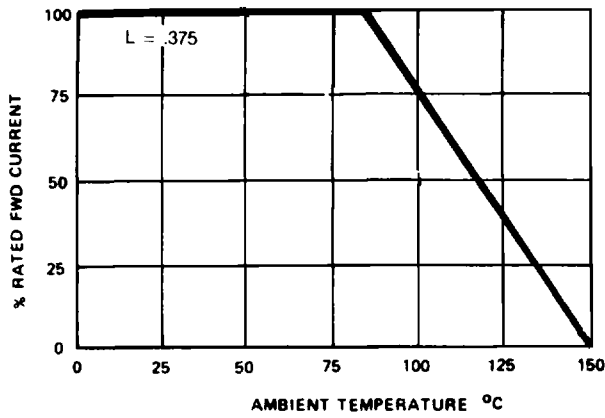


FIG. 2
NON - REPETITIVE SURGE CURRENT

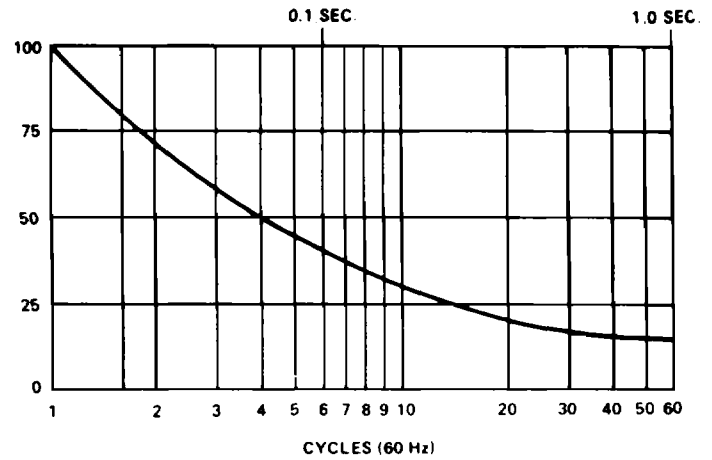
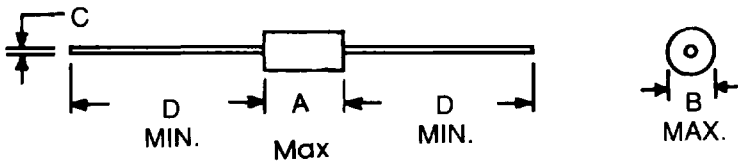
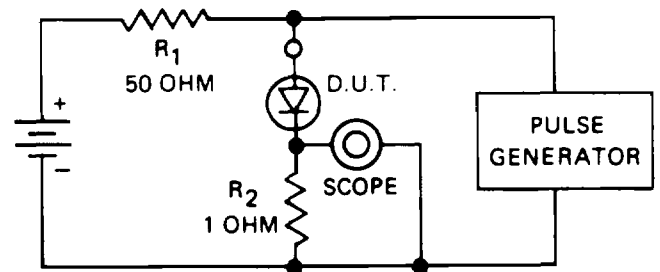
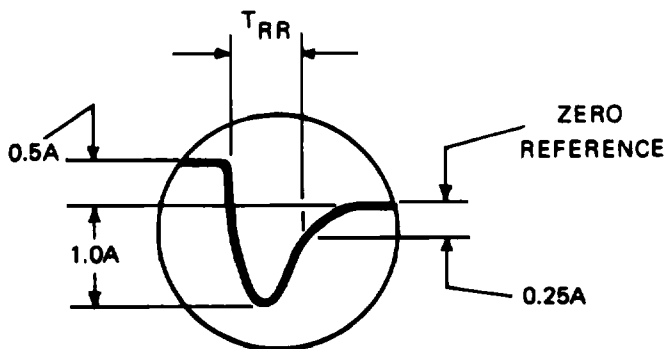


FIG. 3
MECHANICAL



	DIMENSIONS (inches)			
	A	B	C	D
RUS1	.380	.160	$\frac{0.033}{0.031}$	1.00
RUS2	.380	.260	$\frac{0.052}{0.048}$	1.00
RUS3	.380	.260	$\frac{0.052}{0.048}$	1.00
RUS4	.380	.310	$\frac{0.052}{0.048}$	1.00
RUS5	.380	.200	$\frac{0.033}{0.031}$	1.00

TYPICAL REVERSE RECOVERY WAVEFORM



R_1, R_2 NON-INDUCTIVE RESISTORS
PULSE GENERATOR - HEWLETT PACKARD 214A OR EQUIV.
1KC REP. RATE, 10μ SEC. PULSE WIDTH
ADJUST PULSE AMPLITUDE FOR PEAK I_R