



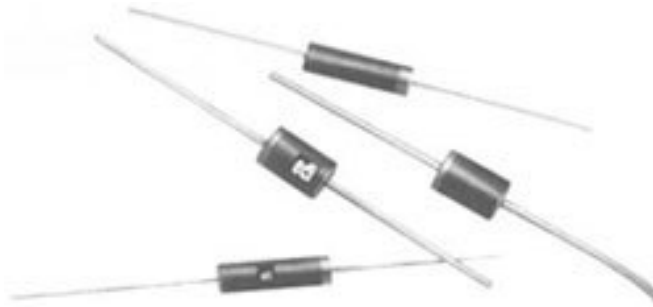
XL XLR XLU XMR XMU

HIGH VOLTAGE RECOVERY FOR X-RAY AND INDUSTRIAL APPLICATIONS

STANDARD AND FAST RECOVERY TYPES

- EPOXY MOLDED PACKAGE
- PLATINUM DOPED
- AVALANCHE CAPABILITY

X-RAY BOARD ASSEMBLIES ALSO AVAILABLE. INQUIRE.



ELECTRICAL CHARACTERISTICS (at TA=25°C Unless Otherwise Specified)

Type	XLR 5	XL 10	XLR 10	XLU 12	XLR 20	XMR 5	XMU 5	XMU 10	
Peak Reverse Voltage, Operating, $V_{R(OPER)}$	5	9	9	11	18	5	5	9	kV
Peak Reverse Voltage, Test, $V_{R(TEST)}$	5.5	10	10	12	20	5.5	5.5	10	kV
Average Rectified Forward Current in 55 °C Oil (Fig. 1)	200	220	200	100	100	500	300	300	mA
Max. Peak Surge Current, I_{FRM} 1/2 Cycles @ 60Hz (Non Repetitive), Fig. 2	35	20	18	15	10	100	100	100	AMPS
Max. Peak Surge Current, I_{FRM} , 10 Cycles @ 60Hz	11	6	5.5	5	2.7	25	25	25	AMPS
Max. Forward Voltage Drop, V_{FM} @ , I_F	$I_F=50mA$					$I_F=500mA$	$I_F=300mA$		V
	7	12	14	22	28	10	11	21	
Max. DC Reverse Current, I_{RM} , @ $V_{R(TEST)}$ and 25 °C,	1	1	1	1	1	5	5	5	μA
Max. DC Reverse Current, I_{RM} , @ $V_{R(TEST)}$ and 100 °C,	30	25	30	30	30	500	350	350	μA
Max. Reverse Recovery Time, T_{RR} $I_F=50mA$, $I_R=100mA$, $I_{RR}=25mA$, (Fig. 4)	175	NOT RATED	175	50	175	150	75	75	ns
Ambient Operating Temperature Range, T_A	-55 to +125°C								
Storage Temperature Range, T_{STG}	-55 to +150°C								

If operated over 10,000 v/inch in length, devices should be immersed in oil or re-encapsulated.

XL XLR XLU XMR XMU

FIG.1

OUTPUT CURRENT vs AMBIENT TEMPERATURE

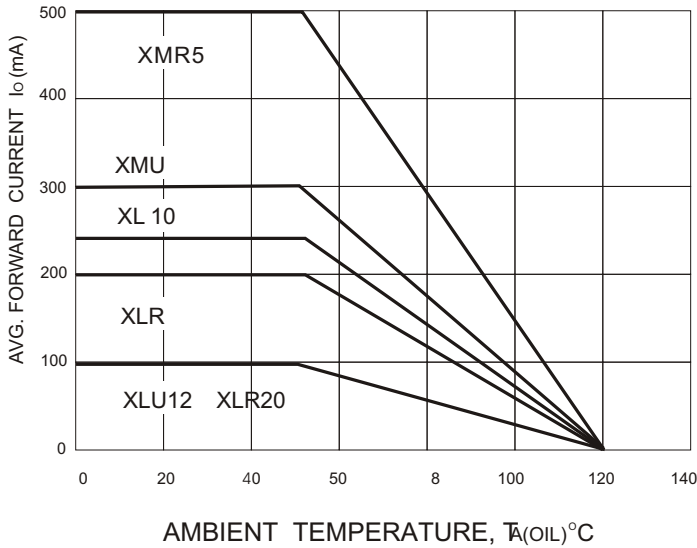


FIG.2

NON-REPETITIVE SURGE CURRENT
PEAK SURGE CURRENT VS
NUMBER OF CYCLES AT 60 Hz
(SINE WAVE INPUT) AND $T_A = 25^\circ C$

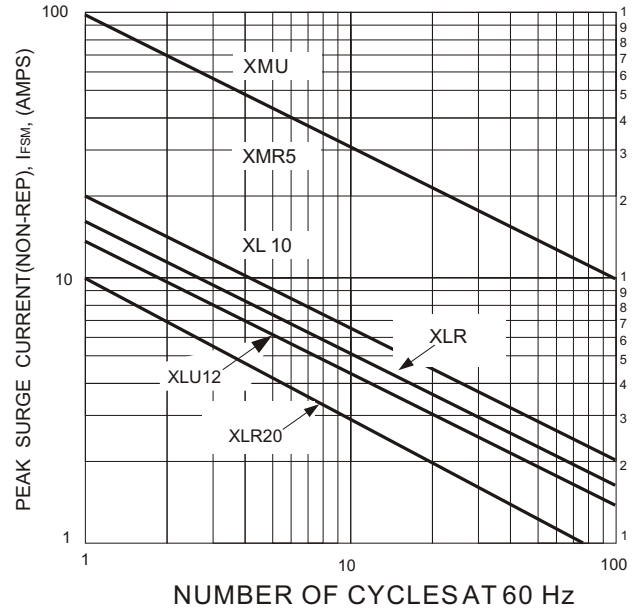
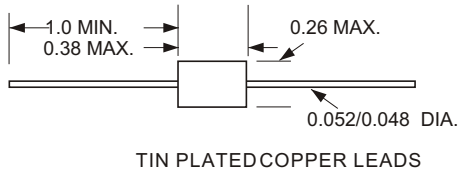
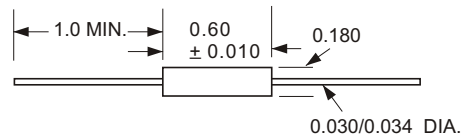


FIG.3
MECHANICAL

Max. lead temperature for soldering, $\frac{1}{8}$ " from body, 10 seconds @ $260^\circ C$



TIN PLATED COPPER LEADS
XMR, XMU



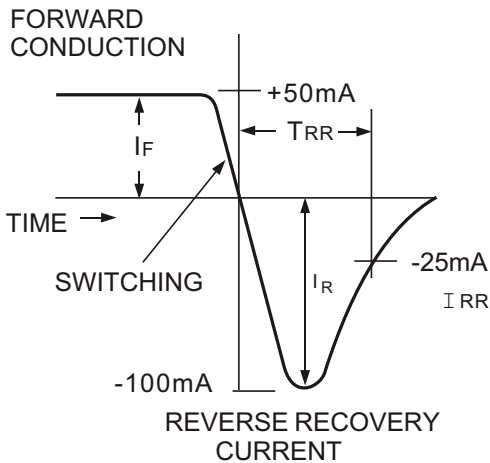
ALL DIMENSION IN INCHES

XL, XLR, XLU

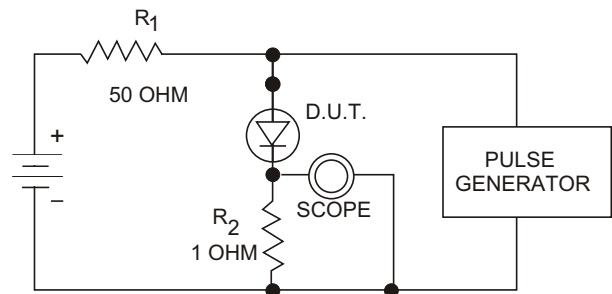
FIG.4

REVERSE RECOVERY TEST METHOD

RECOVERY WAVE FORM



RECOVERY TEST CIRCUIT



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

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