DATA SHEET

MUR105 SERIES

SURFACE MOUNT ULTRA FAST RECOVERY RECTIFIER

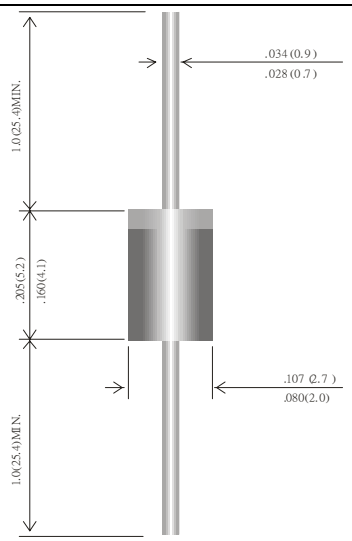
VOLTAGE **50~1000 Volts** **CURRENT** **1.0 Ampere**

FEATURES

- LOW POWER LOSS, HIGH EFFICIENCY
- LOW LEAKAGE
- LOW FORWARD VOLTAGE DROP
- HGH CURRENT CAPABILITY
- HIGH SPEED SWITCHING
- HIGH RELIABILITY
- HIGH CURRENT SURGE
- GLASS PASSIVATED CHIP JUNCTION

MECHANICAL DATA

- CASE：MOLDED PLASTIC
- EPOXY：UL 94V-0 RATE FLAME RETARDANT
- LEAD：MIL-STD-202E METHOD 208C GUARANTEED
- MOUNTING POSITION：ANY
- WEIGHT：0.34 GRAMS



CASE：DO-41

DIMENSIONS IN INCHES AND (MILLIMETERS)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	MUR 105	MUR 110	MUR 115	MUR 120	MUR 140	MUR 160	MUR 180	MUR 1100	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	150	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	105	140	280	480	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	150	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375″ (9.5mm) LEAD LENGTH AT T_A=55°C	I_O	1.0								A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	35								A
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JA}$	50								℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150								℃
OPERATING TEMPERATURE RANGE	T_J	-55 TO + 150								℃

ELECTRICAL CHARACTERISTICS (A_T T_A =25°C UNLESS OTHERWISE NOTED)

PARAMETER		SYMBOL	MUR 105	MUR 110	MUR 115	MUR 120	MUR 140	MUR 160	MUR 180	MUR 1100	UNITS
MAXIMUM FORWARD VOLTAGE AT 1A		V_F	0.875				1.25		1.75		V
MAXIMUM DC REVERSE CURRENT	25℃	I_R	2				5				μA
	100℃		50								
TYPICAL JUNCTION CAPACITANCE (NOTE 1)		C_J	70								pF
MAXIMUM REVERSE RECOVERY TIME(NOTE 3)		T_{RR}	25				50		75		nS

NOTE: 1. MEASURED AT 1 MHz AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2. BOTH LEADS ATTATCHED TO HEATSINK 20×20×1t(mm) COPPER PLATE AT LEAD LENTH 5mm

3. REVERSE RECOVERY TEST CONDITIONS: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

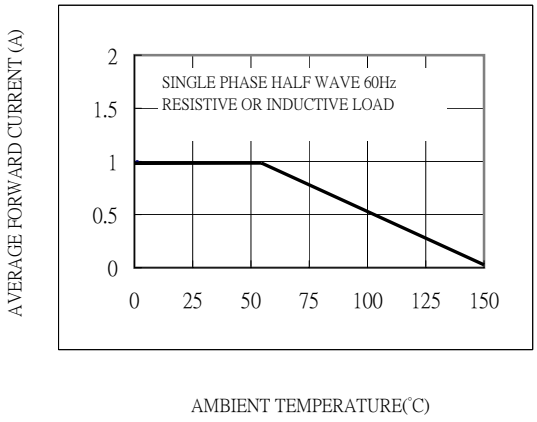


Fig.1-TYPICAL FORWARD CURRENT DERATING CURVE

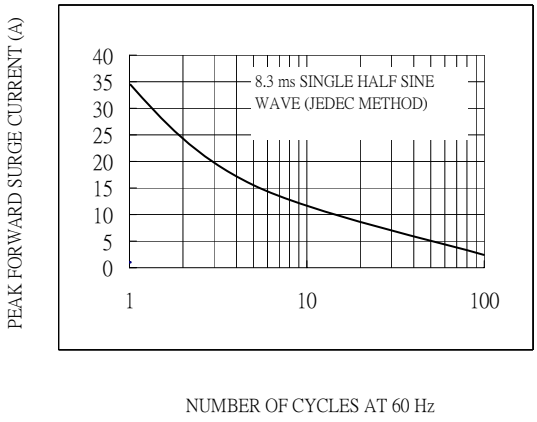


Fig.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

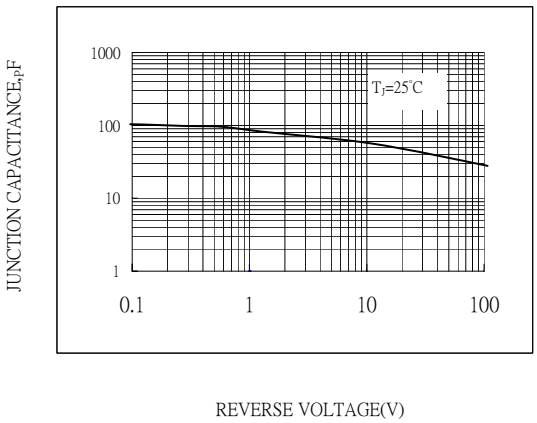


Fig.3-TYPICAL JUNCTION CAPACITANCE

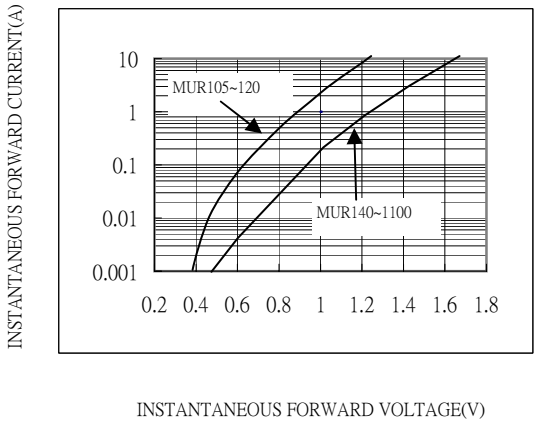


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

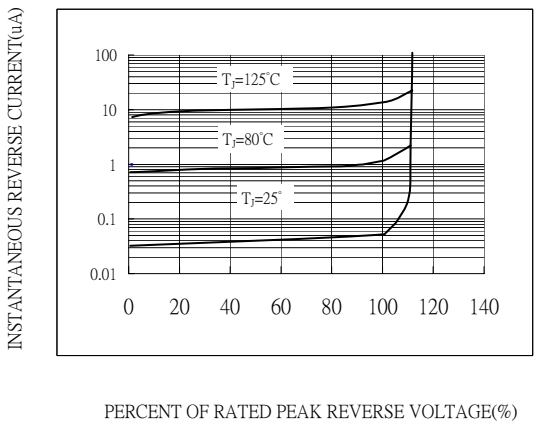


Fig.5-TYPICAL REVERSE CHARACTERISTICS