DATA SHEET

MURS305 SERIES

SURFACE MOUNT ULTRA FAST RECOVERY RECTIFIER

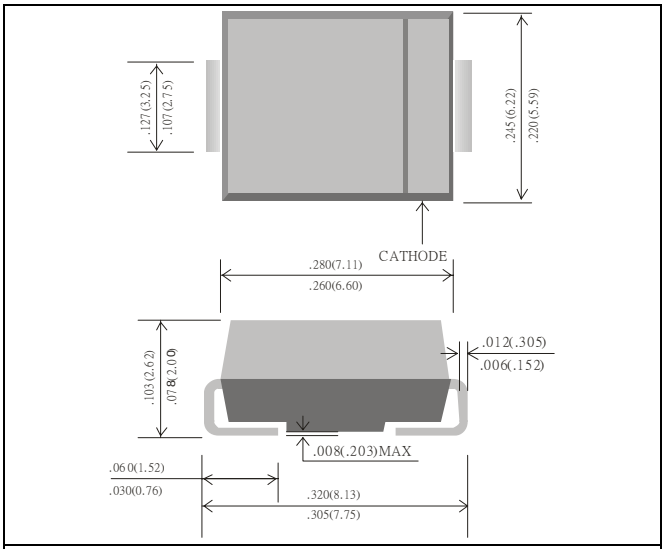
VOLTAGE **50~600 Volts** **CURRENT** **3.0 Ampere**

FEATURES

- LOW PROFILE PACKAGE
- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY 94V-0
- IDEAL FOR SURFACE MOUNTED APPLICATION
- GLASS PASSIVATED CHIP JUNCTI
- BULIT-IN STRAIN RELIEF DESIGN
- ULTRA FAST RECOVERY TIME FOR HIGH EFFICIENT
- HIGH TEMPERTURE SOLDERING : 260°C/10 SECONDS AT TERMINALS

MECHANICAL DATA

- CASE：MOLDED PLASTIC
- TERMINALS：SOLDER PLATED, SOLDERABLE PER MIL-STD-750 METHOD 2026
- POLARITY：COLOR BAND DENOTES CATHODE
- WEIGHT：0.21 GRAMS



CASE：DO-214AB (SMC)

DIMENSIONS IN INCHES AND (MILLIMETERS)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	MURS305	MURS310	MURS315	MURS320	MURS340	MURS360	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	150	200	400	600	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	105	140	280	420	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	150	200	400	600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375″ (9.5mm) LEAD LENGTH AT T_A=75°C	I_O	3.0						A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	75						A
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JL}$	13						℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150						℃
OPERATING TEMPERATURE RANGE	T_J	-55 TO + 125						℃

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

PARAMETER		SYMBOL	MURS305	MURS310	MURS315	MURS320	MURS340	MURS360	UNITS
MAXIMUM FORWARD VOLTAGE AT 3A		V_F	0.875				1.25		V
MAXIMUM DC REVERSE CURRENT	25℃	I_R	2				5		μA
	125℃		250						
TYPICAL JUNCTION CAPACITANCE (NOTE 1)		C_J	70						pF
MAXIMUM REVERSE RECOVERY TIME(NOTE 3)		T_{RR}	25			50			nS

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

2. THERMAL RESISTANCE FROM JUNCTION TO AMBIENT AND JUNCTION TO LEAD P.C.B. MOUNTED ON 0.3×0.3”(8.0×8.0 mm) COPPER PAD AREAS

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

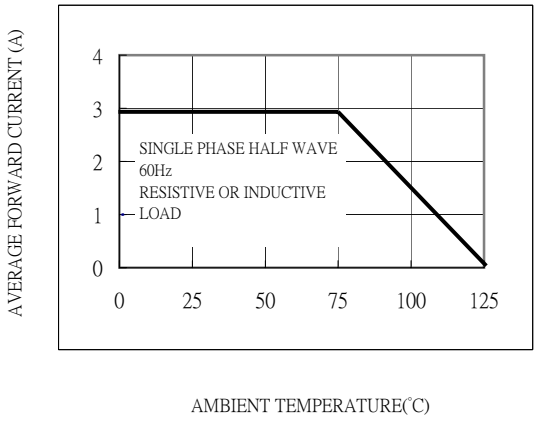


Fig.1-TYPICAL FORWARD CURRENT DERATING CURVE

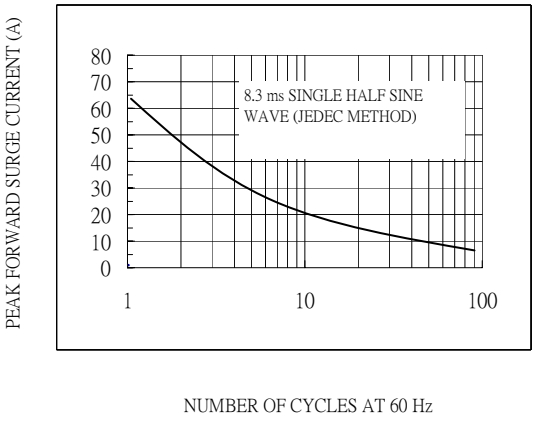


Fig.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

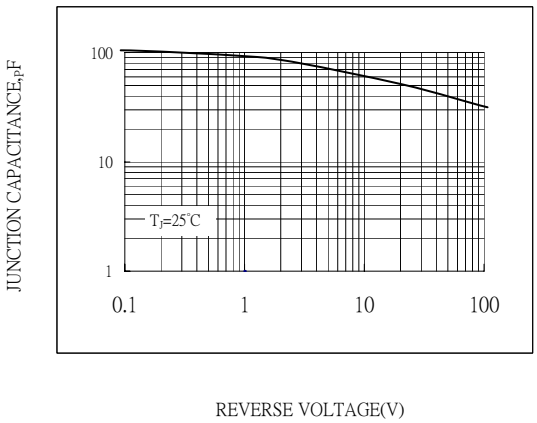


Fig.3-TYPICAL JUNCTION CAPACITANCE

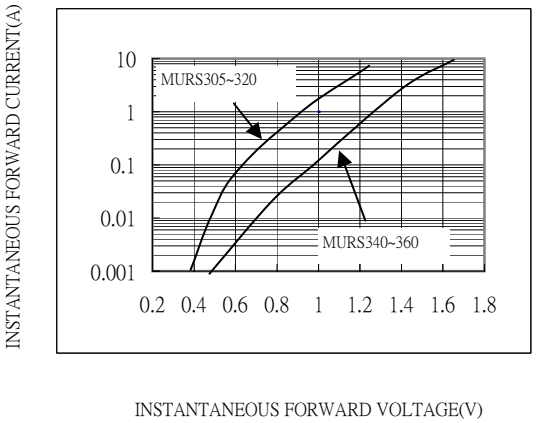


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

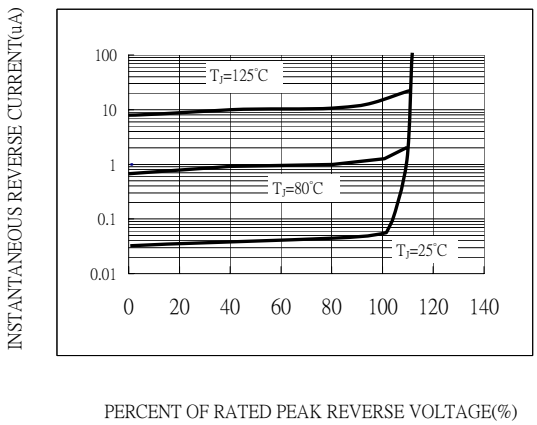


Fig.5-TYPICAL REVERSE CHARACTERISTICS