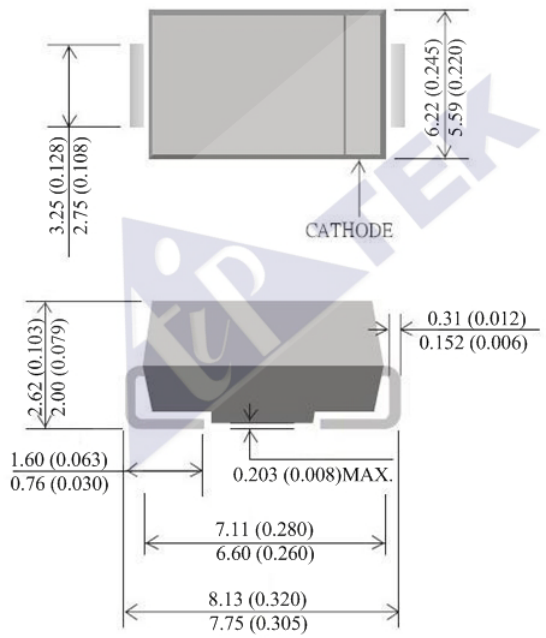
5A SURFACE MOUNT RECTIFIER



CASE：DO-214AB(SMC)

DIMENSIONS IN MILLIMETERS AND (INCHES)

FEATURES

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

MECHANICAL DATA

- CASE：JEDEC DO-214AB MOLDED PLAS BODY
- TERMINAL：SOLDER PLATED, SOLDERABLE PER MIL-STD-750 METHOD 2026
- POLARITY：COLOR BAND DENOTES CATHODE
- WEIGHT：0.24 GRAMS
- Pb Free: S5A~S5M
  Halogen Free: S5A-H~S5M-H

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	S5A	S5B	S5D	S5G	S5J	S5K	S5M	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375″ (9.5mm) LEAD LENGTH AT T_A=75°C	I_O	5.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	100							A
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JL}$	15							℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150							℃
OPERATING TEMPERATURE RANGE	T_J	-55 TO + 150							℃

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

PARAMETER		SYMBOL	S5A	S5B	S5D	S5G	S5J	S5K	S5M	UNITS
MAXIMUM FORWARD VOLTAGE AT 5A		V_F	1.15							V
MAXIMUM DC REVERSE CURRENT	25℃	I_R	10							μA
	125℃		250							
TYPICAL JUNCTION CAPACITANCE (NOTE 1)		C_J	40							pF

NOTE: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE 0F 4.0 VOLTS
2. THERMAL RESISTANCE FROM JUNCTION TO LEAD P.C.B. MOUNTED ON 0.3×0.3”(8.0×8.0mm) COPPER PAD AREAS
3. REVERSE RECOVERY TEST CONDITIONS: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

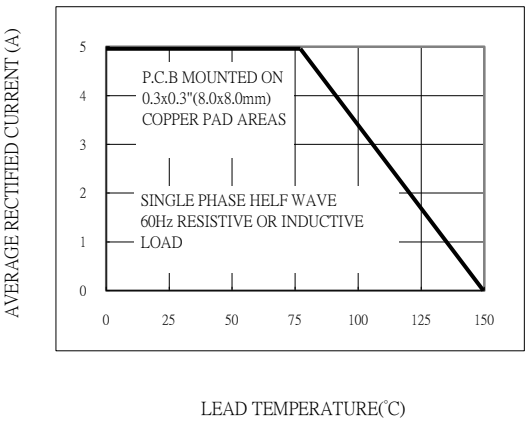


Fig.1-MAXIMUM CURRENT DERATING CURVE

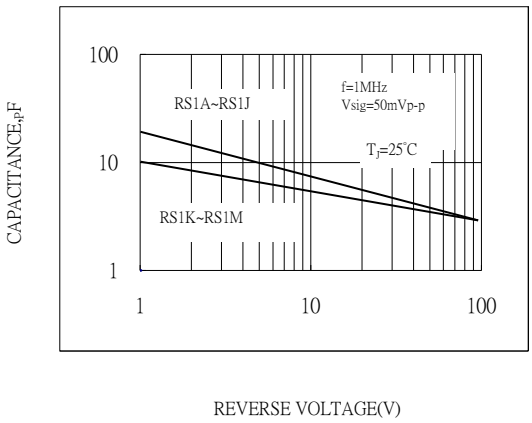


Fig.2-TYPICAL JUNCTION CAPACITANCE

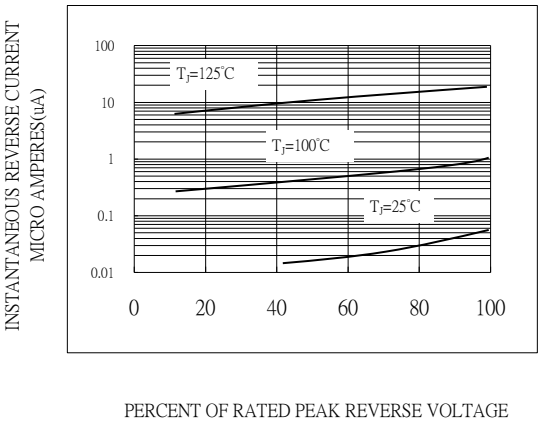


Fig.3-TYPICAL REVERSE CHARACTERISTICS

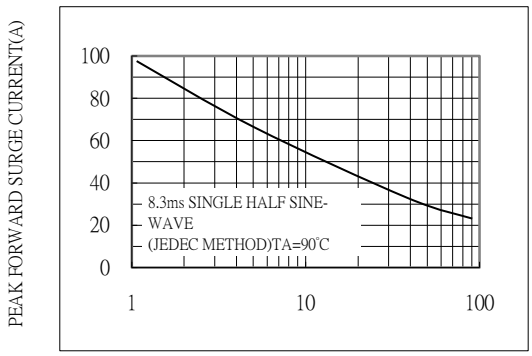


Fig.4-MAXIMUM FORWARD SURGE CURRENT

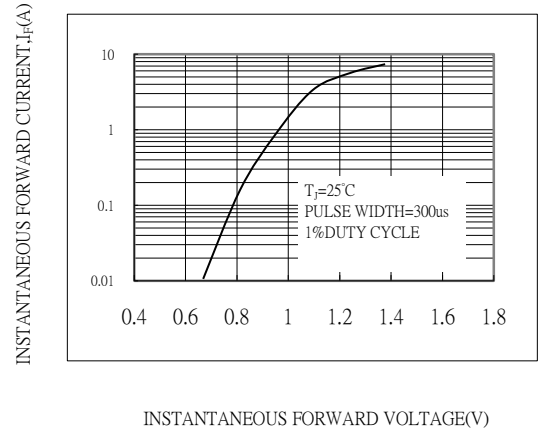


Fig.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

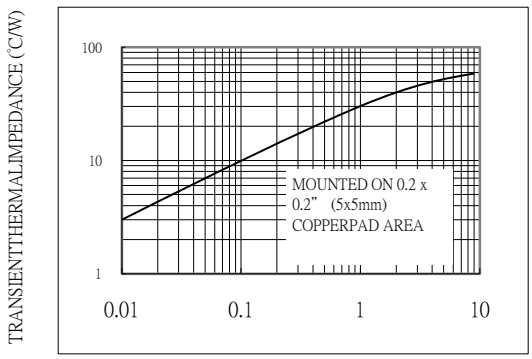


Fig.6-TYPICAL TRANSIENT THERMAL IMPEDANCE