DATA SHEET

SR502 SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

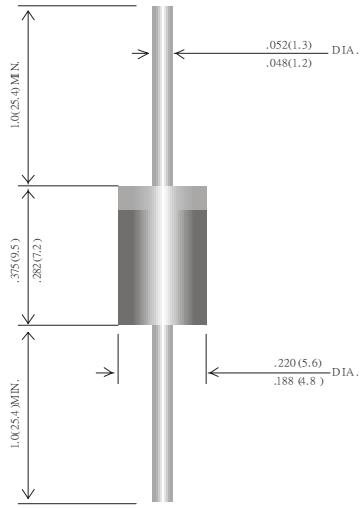
VOLTAGE **20~100 Volts** **CURRENT** **5.0 Ampere**

FEATURES

- EXTREMELY LOW V_F
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS/HIGH EFFICIENCY

MECHANICAL DATA

- CASE：TRANSFER MOLDED
- LEADS：SOLDERABLE PER MIL-STD-202,METHOD 208
- POLARITY：CATHODE INDICATED BY COLOR BAND
- WEIGHT：1.19 GRAMS



CASE：DO-201AD

DIMENSIONS IN INCHES AND (MILLIMETERS)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	SR502	SR503	SR504	SR505	SR506	SR508	SR510	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	20	30	40	50	60	80	100	V
MAXIMUM RMS VOLTAGE	V_{RMS}	14	21	28	35	42	56	70	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	20	30	40	50	60	80	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT (SEE FIG.1)	I_O	5.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	150							A
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JA}$	25							℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	-65 TO +150							℃
OPERATING TEMPERATURE RANGE	T_J	-65 TO +125			-65 TO +150				℃

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

PARAMETER		SYMBOL	SR502	SR503	SR504	SR505	SR506	SR508	SR510	UNITS
MAXIMUM FORWARD VOLTAGE AT 1A		V_F	0.57			0.7		0.8	0.85	V
MAXIMUM DC REVERSE CURRENT	25℃	I_R	0.5							mA
	100℃		50							
TYPICAL JUNCTION CAPACITANCE (NOTE 1)		C_J	550							pF

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

2. THERMAL RESISTANCE FROM JUNCTION TO AMBIENT P.C.B. MOUNTED WITH 0.375" (9.5mm) LEAD LENGTH WITH 1.5" x 1.5" (38 X 38mm) COPPER PADS.

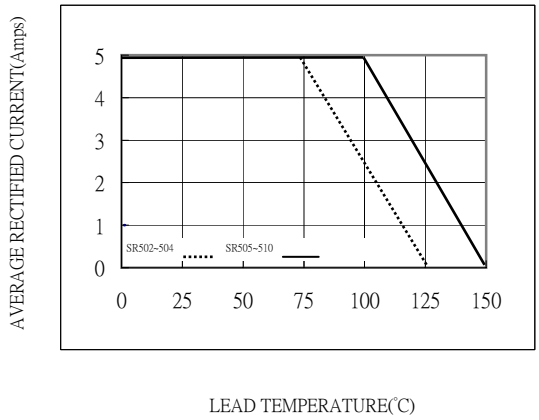


Fig.1-FORWARD CURRENT DERATING CURVE

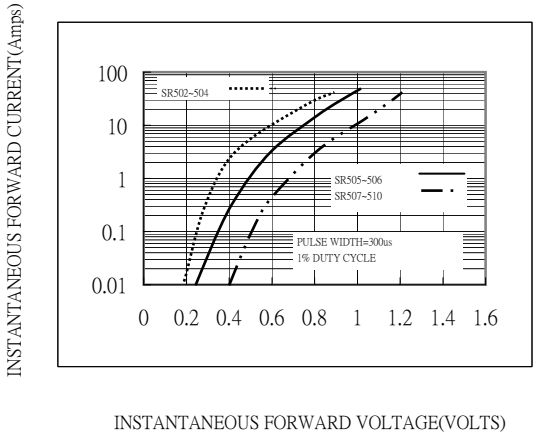


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

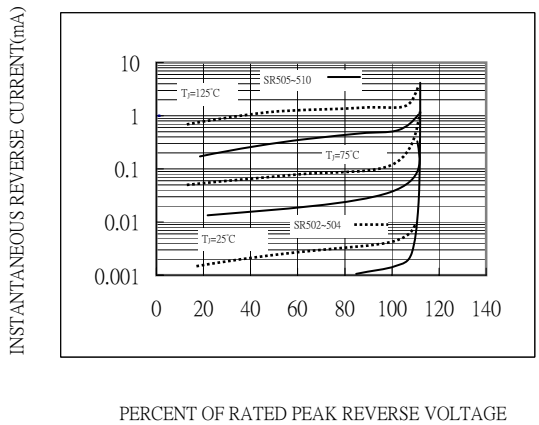


Fig.3-TYPICAL REVERSE CHARACTERISTICS

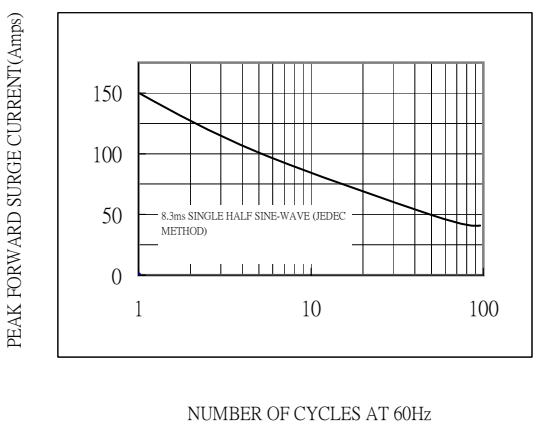


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

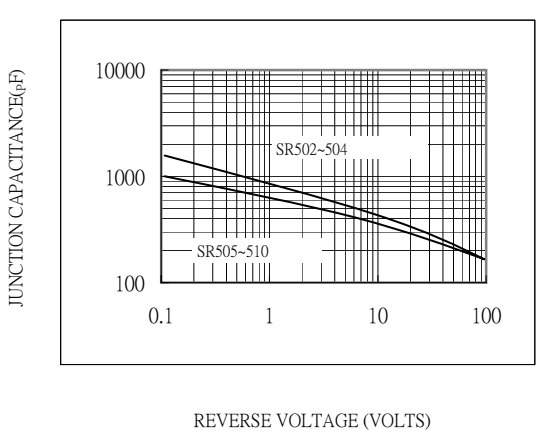


Fig.5-TYPICAL JUNCTION CAPACITANCE