

# DATA SHEET

## SR302 SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

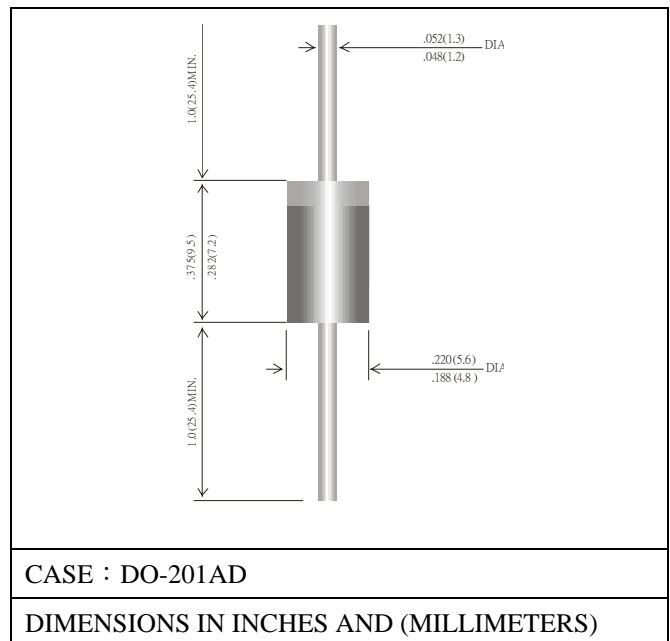
**VOLTAGE** 20~150 Volts **CURRENT** 3.0 Ampere

### 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-202E, METHOD 208C
- POLARITY : CATHODE INDICATED BY COLOR BAND
- WEIGHT : 1.19 GRAMS



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	SR302	SR303	SR304	SR305	SR306	SR308	SR310	SR315	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	20	30	40	50	60	80	100	150	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	14	21	28	35	42	56	70	105	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	20	30	40	50	60	80	100	150	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT AT $T_L=75^\circ\text{C}$ (SR302~SR304) , AT $T_L=100^\circ\text{C}$ (SR305~SR308)	$I_o$	3.0								A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	80								A
TYPICAL THERMAL RESISTANCE	$R_{\theta JA}$	40								$^\circ\text{C}/\text{W}$
STORAGE TEMPERATURE RANGE	$T_{STG}$	-65 TO +150								$^\circ\text{C}$
OPERATING TEMPERATURE RANGE	$T_j$	- 65 TO + 125				-65 TO +150				$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	SR302	SR303	SR304	SR305	SR306	SR308	SR310	SR315	UNITS
MAXIMUM FORWARD VOLTAGE AT 3A	$V_F$	0.55			0.75	0.8	0.85	0.92		V
MAXIMUM DC REVERSE CURRENT	$I_R$	0.5								mA
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_j$	200								pF

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

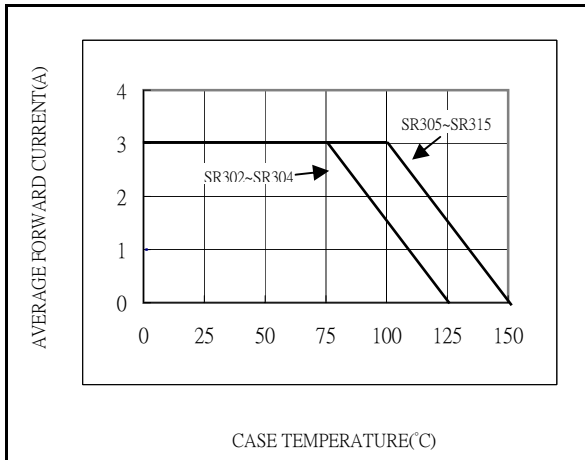


Fig.1-FORWARD CURRENT DERATING CURVE

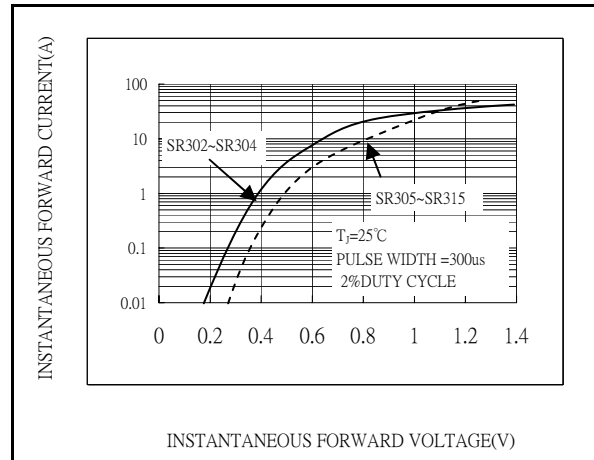


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

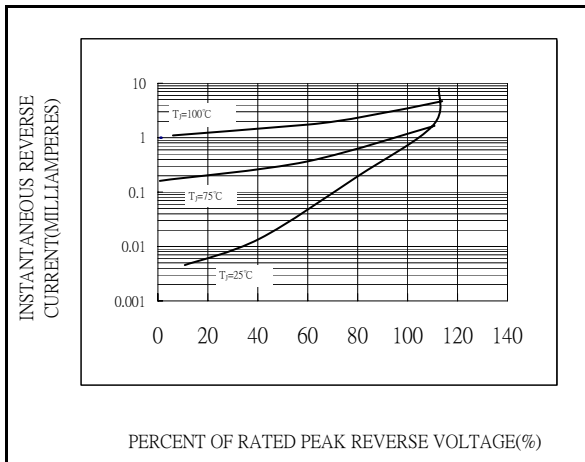


Fig.3-TYPICAL REVERSE CHARACTERISTICS

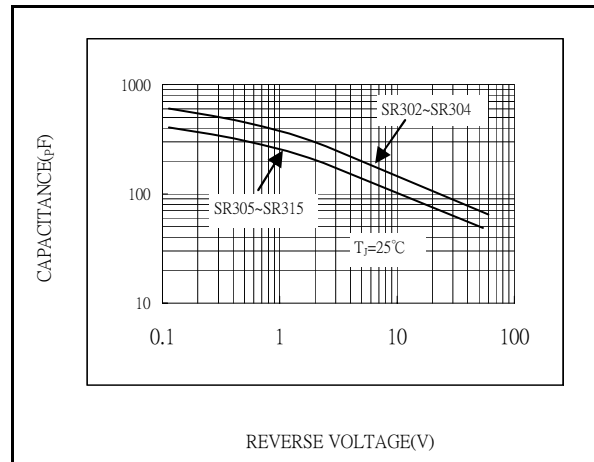


Fig.4-TYPICAL JUNCTION CAPACITANCE

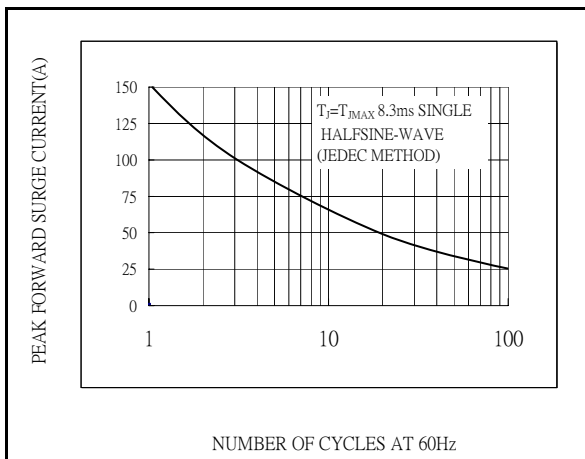


Fig.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT