



# Frontier Electronics Corp.

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## 3A SCHOTTKY BARRIER RECTIFIERS

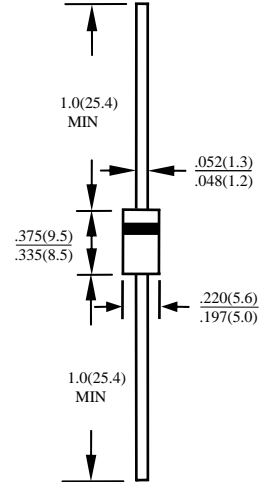
### SR302 THRU SR310

#### FEATURES

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

#### MECHANICAL DATA

- CASE: TRANSFER MOLDED, DO201AD, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 1.2 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SR302	SR303	SR304	SR305	SR306	SR307	SR308	SR309	SR310	UNITS	
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	20	30	40	50	60	70	80	90	100	V	
MAXIMUM RMS VOLTAGE	$V_{RMS}$	14	21	28	35	42	49	56	63	70	V	
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	20	30	40	50	60	70	80	90	100	V	
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375"(9.5mm) LEAD LENGTH AT $T_A=55^\circ\text{C}$	$I_O$	3.0									A	
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	80									A	
TYPICAL JUNCTION CAPACITANCE	$C_J$	250			200						PF	
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150										°C
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 125				- 55 TO + 150						°C

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

CHARACTERISTICS	SYMBOL	SR302	SR303	SR304	SR305	SR306	SR307	SR308	SR309	SR310	UNITS	
MAXIMUM FORWARD VOLTAGE AT $I_O$ DC	$V_F$	0.50			0.74		0.85				V	
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	2.0										mA

- NOTES: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS  
2. BOTH LEADS ATTACHED TO HEAT SINK 20x20x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm

# RATING AND CHARACTERISTIC CURVES SR302 THRU SR310

FIG. 1 - FORWARD CURRENT DERATING CURVE

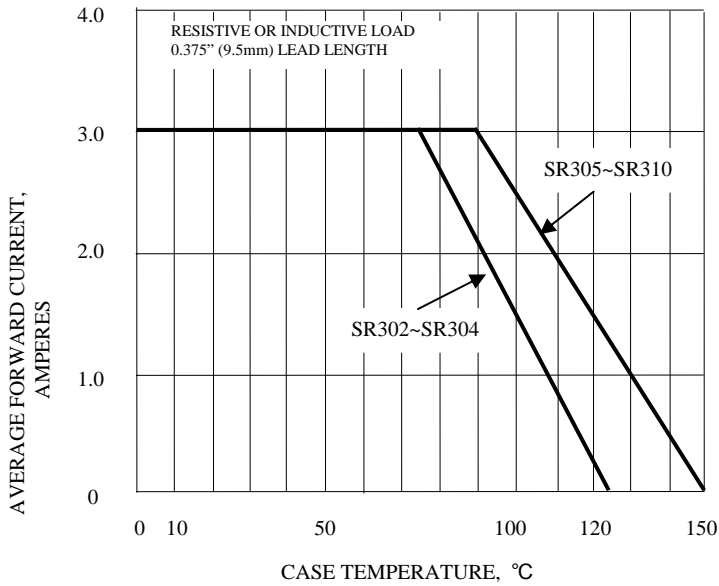


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

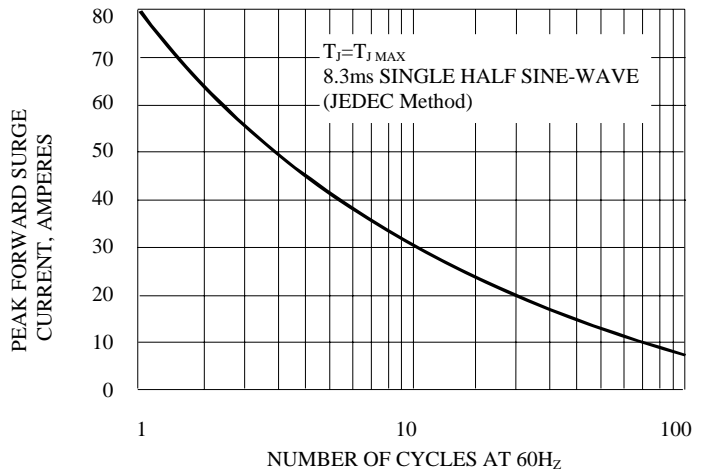


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

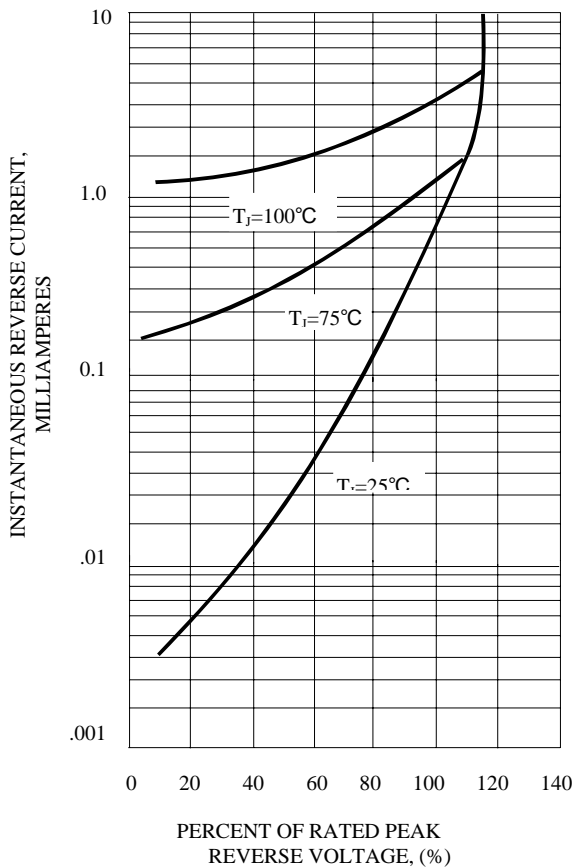


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

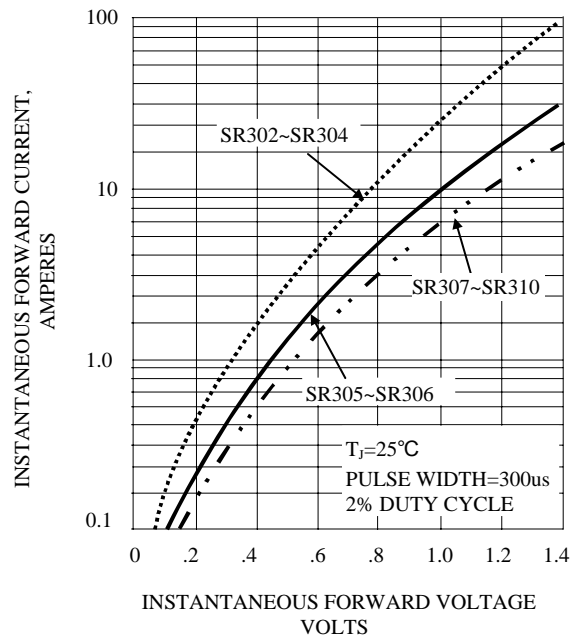


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

