



# Frontier Electronics Corp.

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## 5A SCHOTTKY BARRIER RECTIFIERS

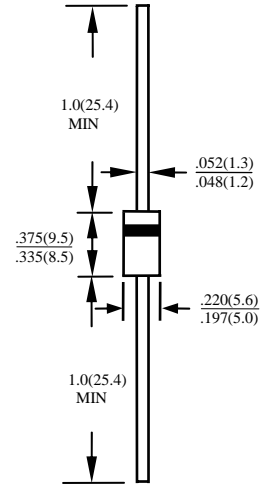
### SR502-LFR THRU SR510-LFR

#### FEATURES

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

#### 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	SR502-LF	SR503-LF	SR504-LF	SR505-LF	SR506-LF	SR507-LF	SR508-LF	SR509-LF	SR510-LF	UNITS
		R	R	R	R	R	R	R	R	R	
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
AVERAGE FORWARD RECTIFIED CURRENT ( SEE FIG.1 )	$I_O$	5.0									A
NOM-REPETITIVE PEAK FORWARD SURGE CURRENT, 8.3mS HALF SINE-WAVE	$I_{FSM}$	150									A
TYPICAL JUNCTION CAPACITANCE (NOTE1)	$C_j$	200									PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	25									°C/W
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150									°C
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 125									°C

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

CHARACTERISTICS	SYMBOL	SR502-LF	SR503-LF	SR504-LF	SR505-LF	SR506-LF	SR507-LF	SR508-LF	SR509-LF	SR510-LF	UNITS
		R	R	R	R	R	R	R	R	R	
MAXIMUM FORWARD VOLTAGE AT $I_O$ DC	$V_F$	0.55			0.7		0.85				V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	5.0									mA
MAXIMUM REVERSE CURRENT AT 100°C	$I_R$	50.0									mA

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

# RATING AND CHARACTERISTIC CURVES SR502-LFR THRU SR510-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

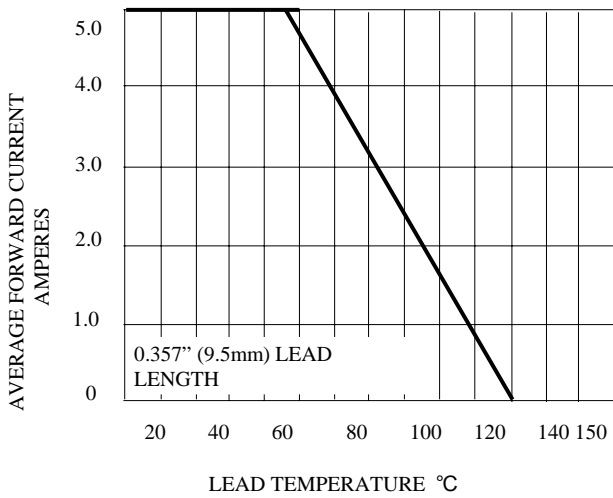


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

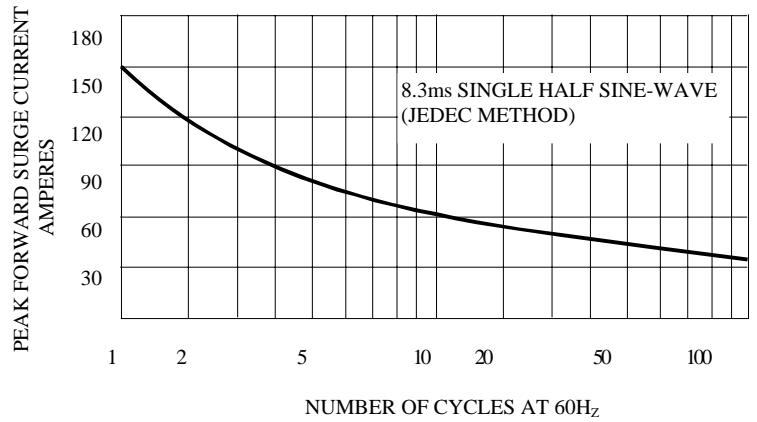


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

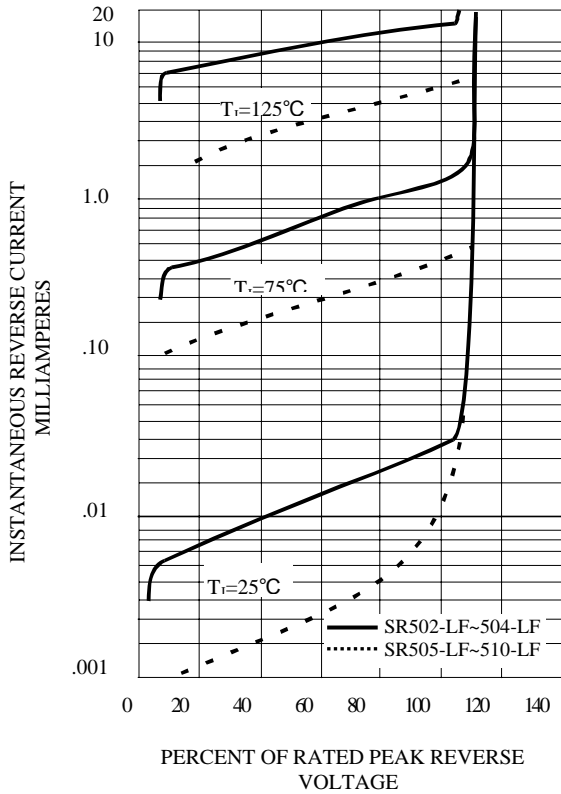


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

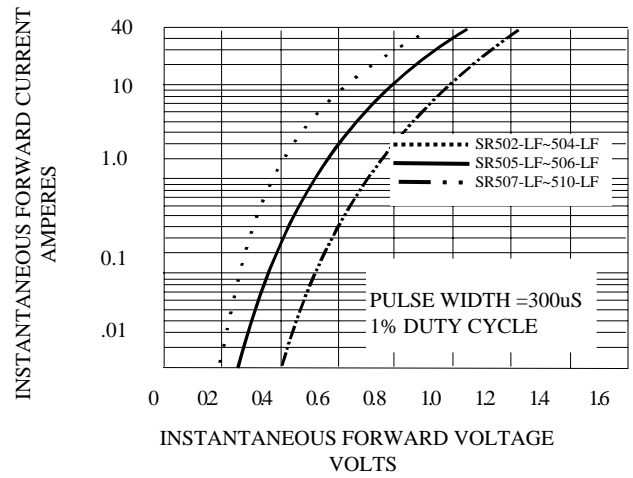


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

