



# Frontier Electronics Corp.

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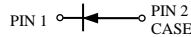
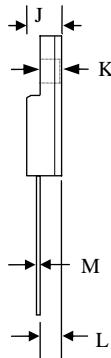
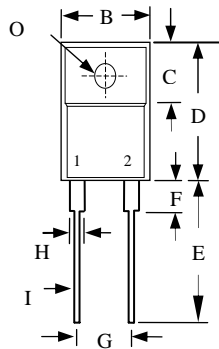
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## 5A SCHOTTKY BARRIER RECTIFIERS

### SRF5-02 THRU SRF5-10

CASE : ITO-220AC( SRF5-XX ) , FULLY INSULATED PACKAGE



	MILLIMETERS	
	MIN	MAX
B	9.72	10.27
C	6.30	6.90
D	14.50	15.50
E	13.00	13.80
F	-	4.1
G	4.95	5.20
H	-	1.52
I	-	0.9
J	-	4.8
K	-	3.1
L	2.5	2.9
M	-	0.8
O	-	Ø 3.4

#### 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
- LEADS: SOLDERABLE PER MIL-STD-202,METHOD 208
- POLARITY: AS MARKED
- WEIGHT 1.81 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	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	UNITS
		-02	-03	-04	-045	-05	-06	-07	-08	-09	-10		
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	20	30	40	45	50	60	70	80	90	100	100	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	14	21	28	31	35	42	49	56	63	70	70	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	20	30	40	45	50	60	70	80	90	100	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT	$I_o$	5.0										A	
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	$I_{FSM}$	150										A	
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150										°C	
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 125										°C	

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

CHARACTERISTICS	SYMBOL	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	SRF5	UNITS
		-02	-03	-04	-045	-05	-06	-07	-08	-09	-10		
MAXIMUM FORWARD VOLTAGE AT $I_o$ PER LEG	$V_F$	0.55					0.70		0.80				V
MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1)	$I_R$	5.0										mA	
MAXIMUM REVERSE CURRENT AT 100°C PER LEG (NOTE 1)	$I_R$	50.0										mA	

#### THERMAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	SRF5	UNITS
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R_{\theta jc}$	6.0	°C/W

NOTES: 1. PULSE TEST: 300µS PULSE WIDTH, 1% DUTY CYCLE

# RATINGS AND CHARACTERISTIC CURVES OF SRF5-02 AND SRF5-10

FIG. 1 - FORWARD CURRENT DERATING CURVE

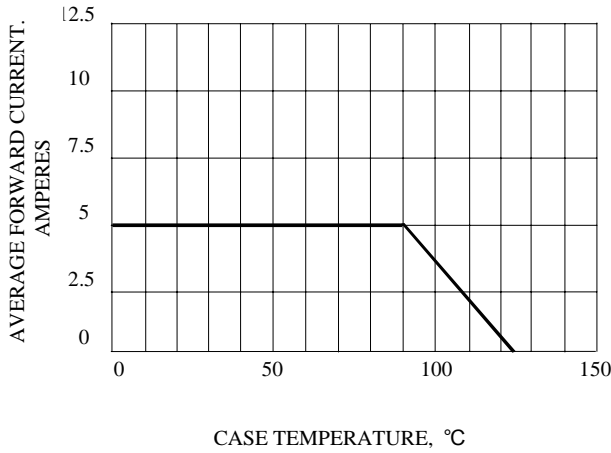


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

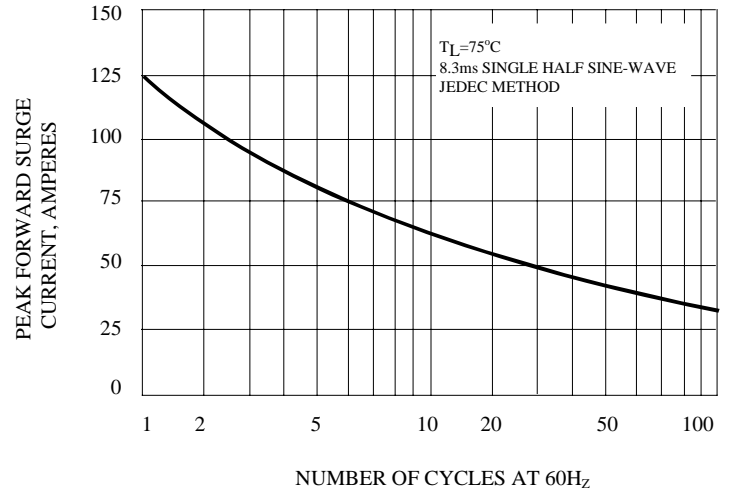


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

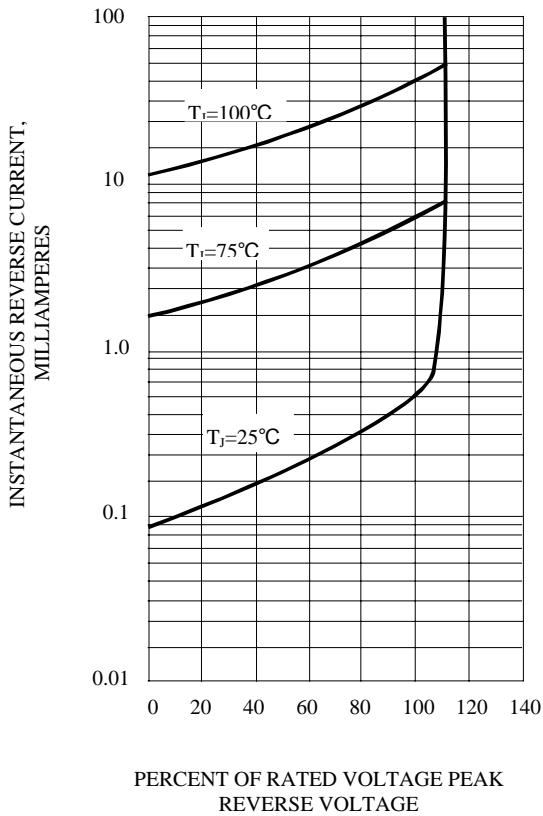


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

