



# Frontier Electronics Corp.

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## 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

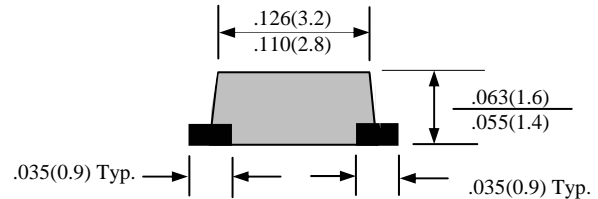
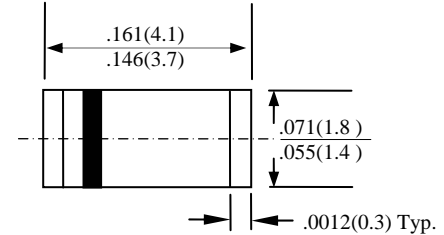
### FM102-LFR THRU FM106-LFR

#### FEATURES

- FOR SURFACE MOUNTED APPLICATIONS
- LOW PROFILE PACKAGE
- BUILT-IN STRAIN RELIEF
- EASY PICK AND PLACE
- PLASTIC MATERIAL USED CARRIES UNDERWRITERS LABORATORY CLASSIFICATION 94 V-0
- EXTREMELY LOW VF
- MAJORITY CARRIER CONDUCTION
- HIGH TEMPERATURE SOLDERING 250°C/10 SECONDS AT TERMINALS
- ROHS

#### MECHANICAL DATA

- CASE: MOLDED PLASTIC ,JEDEC SOD-123 / MINI SMA
- DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDER PLATED, SOLDERABLE PER MIL-STD-750,METHOD 2026
- MOUNTING POSITION : ANY
- WEIGHT: 0.04 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	FM102-LFR	FM103-LFR	FM104-LFR	FM105-LFR	FM106-LFR	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	20	30	40	50	60	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	14	21	28	35	42	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	20	30	40	50	60	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	$I_O$	1.0					A
MAXIMUM OVERLOAD SURGE 8.3ms SINGLE HALF SINE-WAVE	$I_{FSM}$	30					A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_J$	120					PF
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	FM102-LFR	FM103-LFR	FM104-LFR	FM105-LFR	FM106-LFR	UNITS
MAXIMUM FORWARD VOLTAGE AT 1.0A AND 25°C	$V_F$	0.55			0.70		V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	1.0					mA
MARKING		12	13	14	15	16	

NOTE: 1. MEASURED AT 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V

# RATINGS AND CHARACTERISTIC CURVE FM102-LFR THRU FM106-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

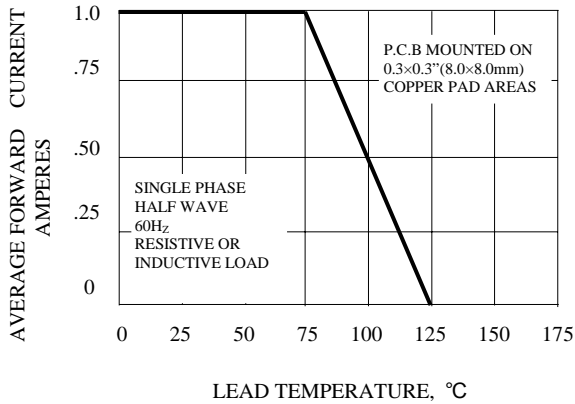


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

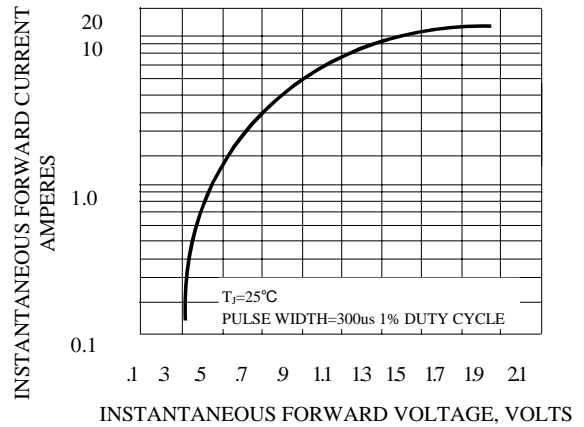


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

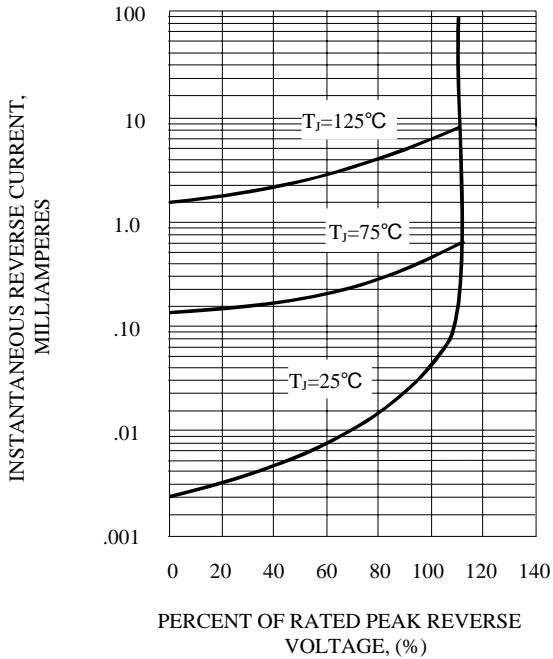


Fig. 4 - MAXIMUM FORWARD SURGE NUMBER OF CYCLES

