



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

E-mail: frontiersales@frontierusa.com

Web: <http://www.frontierusa.com>

1A SURFACE MOUNT RECTIFIER

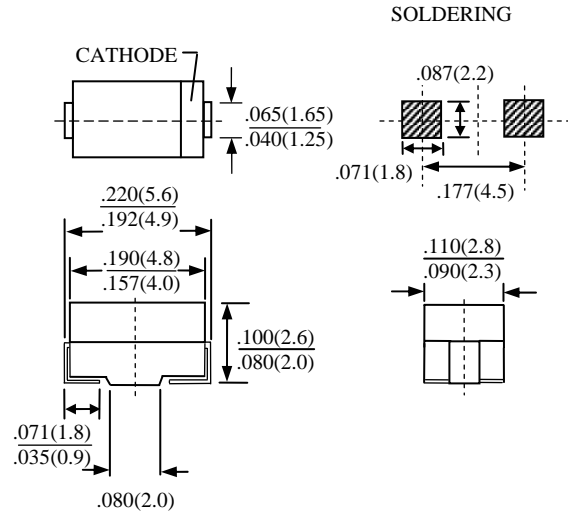
M1-LFR THRU M7-LFR

FEATURES

- IDEAL FOR SURFACE MOUNTED APPLICATION
- LOW PROFILE
- STRAIN RELIEF DESIGN
- HIGH TEMPERATURE SOLDERING: 250°C/10 SEC
- ROHS

MECHANICAL DATA

- TERMINALS: PLATED TERMINAL, SOLDERABLE PER MIL-STD-202, METHOD 208
- CASE: DO-214AC(SMA), MOLDED WITH UL-94 CLASS V-0 RECOGNIZED FLAME RETARDANT EPOXY
- DIMENSIONS IN INCHES AND (MILLIMETERS)
- POLARITY: COLOR BAND DENOTES CATHODE
- STANDARD PACKAGE: 12 m/m TAPE (EIA STD RS-481)
- WEIGHT: 0.064 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	M1-LFR	M2-LFR	M3-LFR	M4-LFR	M5-LFR	M6-LFR	M7-LFR	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT AT $T_L = 100^\circ\text{C}$	I_O	1.0							A
PEAK FORWARD SURGE CURRENT 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	30							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	15							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	θ_{JL}	30							$^\circ\text{C/W}$
OPERATING AND STORAGE TEMPERATURE RANGE	T_{OP}	- 55 TO + 150							$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	M1-LFR	M2-LFR	M3-LFR	M4-LFR	M5-LFR	M6-LFR	M7-LFR	UNITS
MAXIMUM FORWARD VOLTAGE AT RATED FORWARD CURRENT AND 25°C	V_F	1.1							V
MAXIMUM DC REVERSE CURRENT TA 25°C	I_R	5.0							μA
AT RATED DC BLOCKING VOLTAGE TA=100°C		50.0							μA

- NOTE: 1. MEASURED AT 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VDC
2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL 5.0mm² (.013 mm THICK) LAND AREAS

RATINGS AND CHARACTERISTIC CURVES M1-LFR THRU M7-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

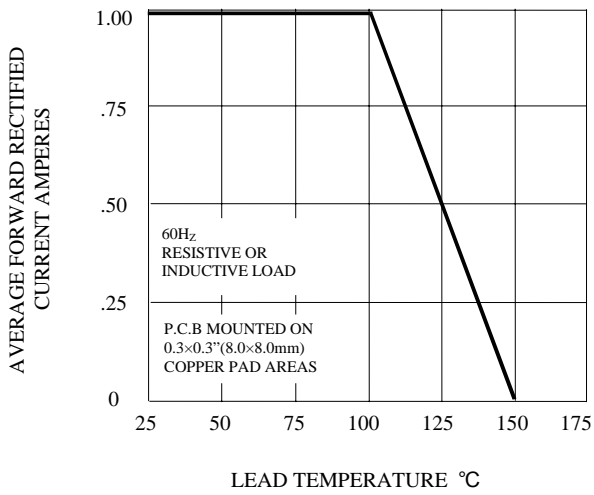


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

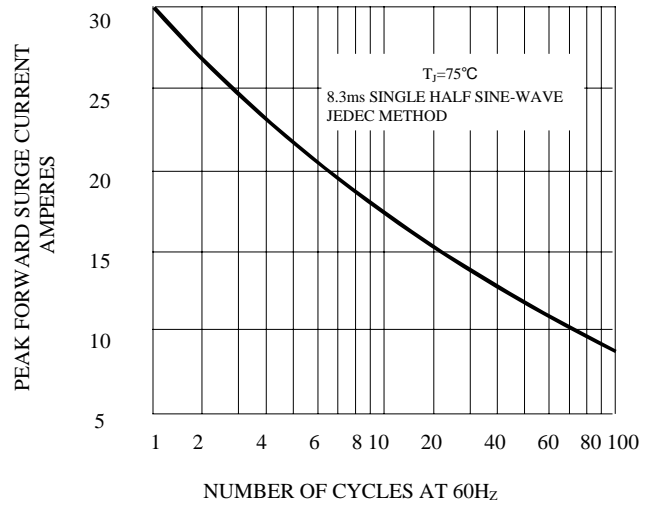


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

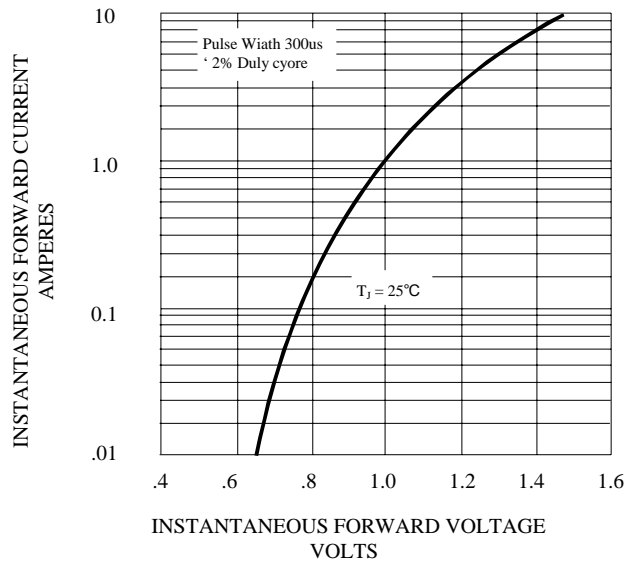


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

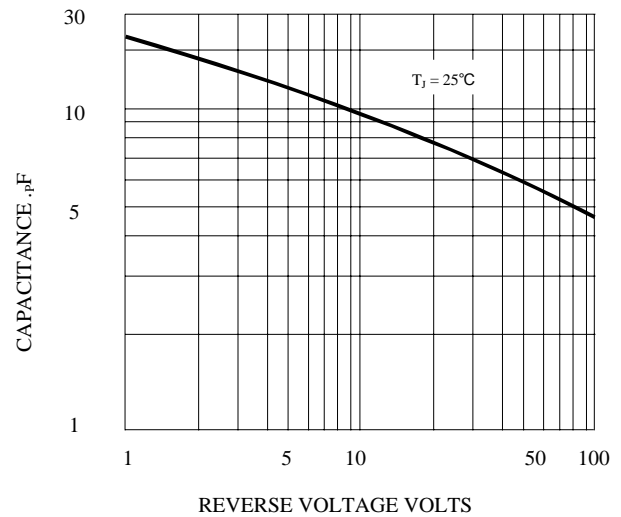


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

