



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>

3A GENERAL PURPOSE PLASTIC RECTIFIER

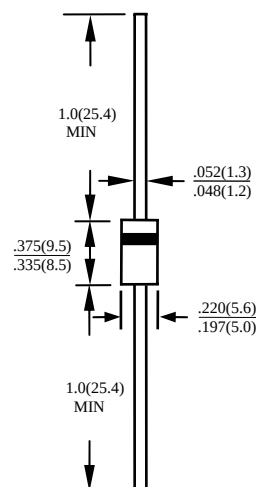
1N5400-LFR THRU 1N5408-LFR

FEATURES

- LOW COST
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- DIFFUSED JUNCTION
- HIGH SURGE CURRENT CAPABILITY
- 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	1N5400-LF R	1N5401-LF R	1N5402-LF R	1N5404-LF R	1N5406-LF R	1N5407-LF R	1N5408-LF R	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 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}	200							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_j	30							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	20							$^{\circ}\text{C/W}$
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150							$^{\circ}\text{C}$
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 125							$^{\circ}\text{C}$

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

CHARACTERISTICS	SYMBOL	1N5400-LF R	1N5401-LF R	1N5402-LF R	1N5404-LF R	1N5406-LF R	1N5407-LF R	1N5408-LF R	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.2							V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5							μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	50							μA

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

2. BOTH LEADS ATTACHED TO HEAT SINK 63.5×63.5×1t(mm) COPPER PLATE AT LEAD LENGTH 5mm

RATINGS AND CHARACTERISTIC CURVE 1N5400-LFR THRU 1N5408-LFR

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

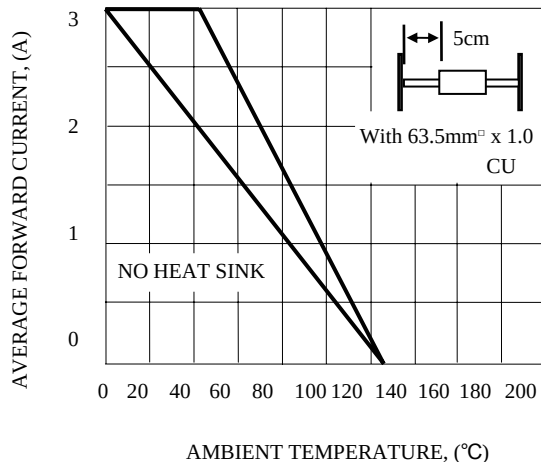


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

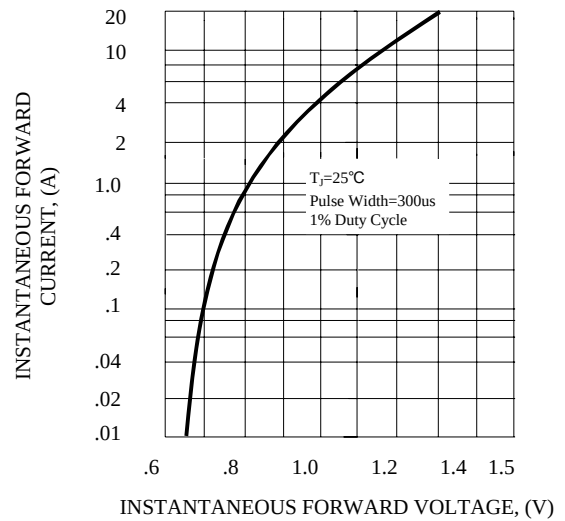


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

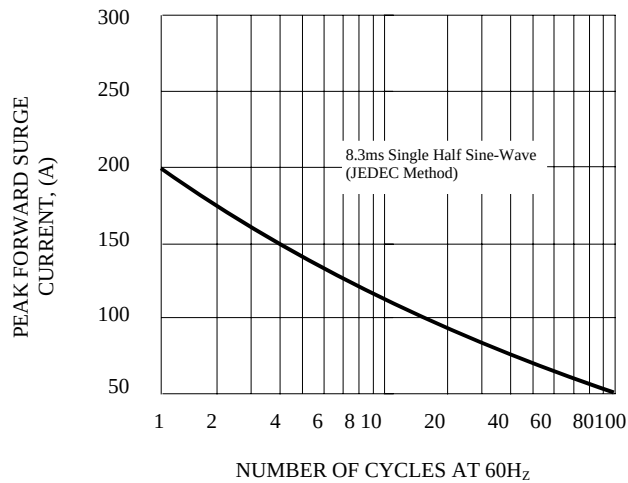


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

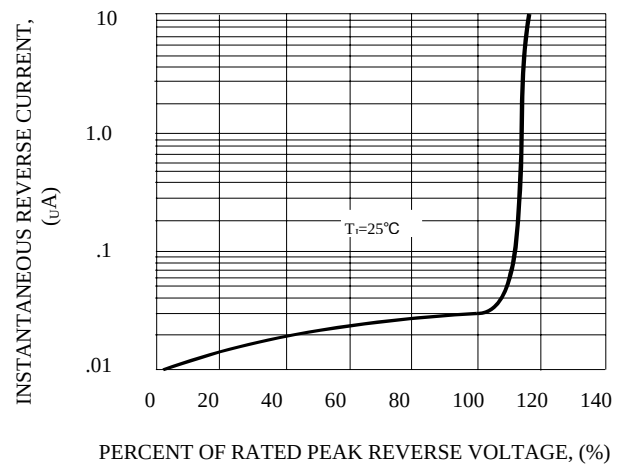


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

