



# Frontier Electronics Corp.

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## 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

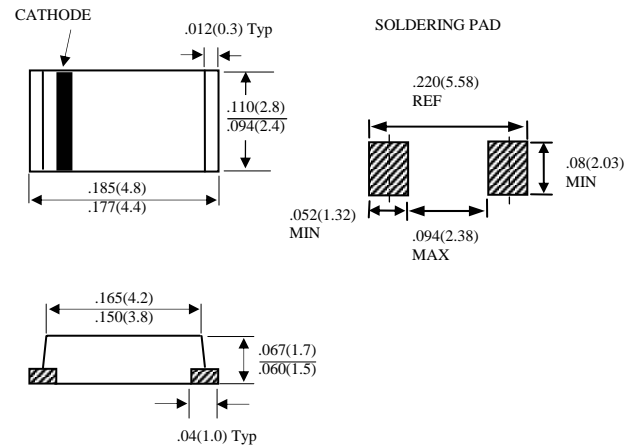
### LK12-LFR THRU LK14-LFR

#### 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: THIN SMA, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDER PLATED
- POLARITY: INDICATED BY CATHODE BAND
- WEIGHT: 0.05 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	LK12-LFR	LK14-LFR	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	20	40	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	14	28	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	20	40	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
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	LK12-LFR	LK14-LFR	UNITS
MAXIMUM FORWARD VOLTAGE AT 1.0A AC AND 25°C	$V_F$	0.38	0.40	V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	0.5		mA

# RATINGS AND CHARACTERISTIC CURVE LK12-LFR THRU LK14-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

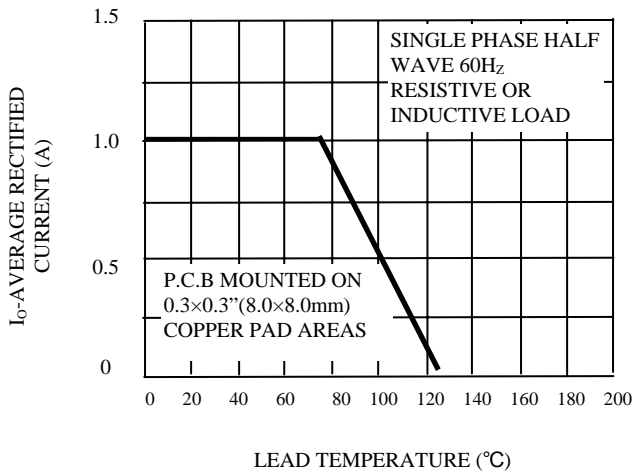


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

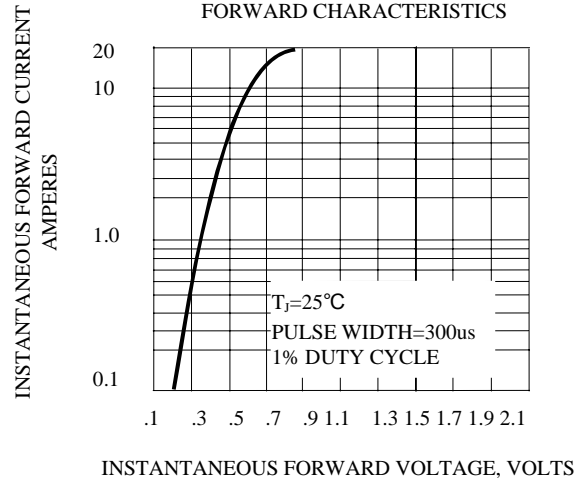


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

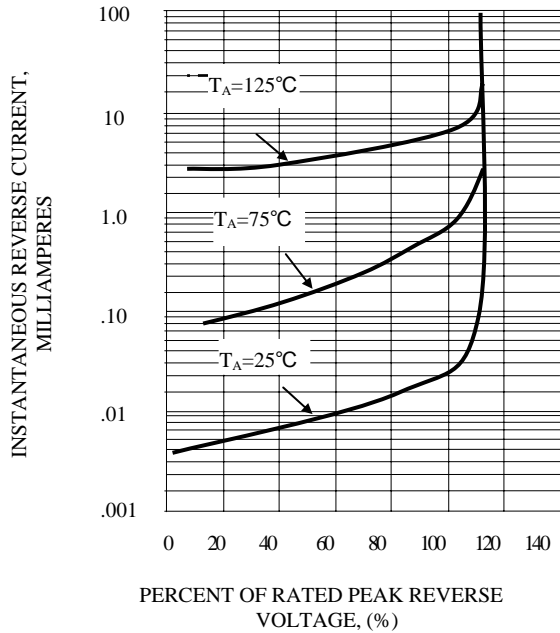


FIG. 5 - MAXIMUM NON-REPETITIVE SURGE CURRENT

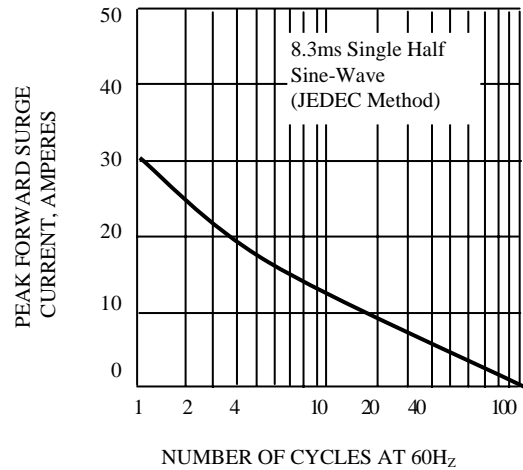


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

