



# Frontier Electronics Corp.

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## 3A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

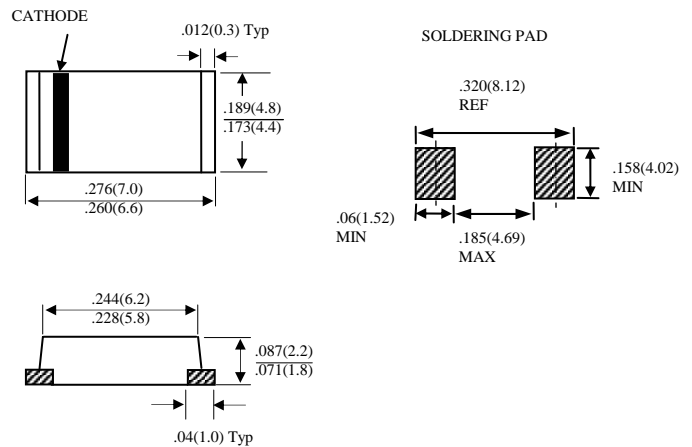
### SK5820 THRU SK5822

#### 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

#### MECHANICAL DATA

- CASE: THIN SMC, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDER PLATED
- POLARITY: INDICATED BY CATHODE BAND
- WEIGHT: 0.195 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	SK5820	SK5821	SK5822	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	20	30	40	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	14	21	28	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	20	30	40	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	$I_O$	3.0			A
MAXIMUM OVERLOAD SURGE 8.3ms SINGLE HALF SINE-WAVE	$I_{FSM}$	80			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	SK5820	SK5821	SK5822	UNITS
MAXIMUM FORWARD VOLTAGE AT 3.0A AC AND 25°C	$V_F$	0.475	0.500	0.525	V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	0.5			mA

# RATINGS AND CHARACTERISTIC CURVE SK5820 THRU SK5822

FIG. 1 - FORWARD CURRENT DERATING CURVE

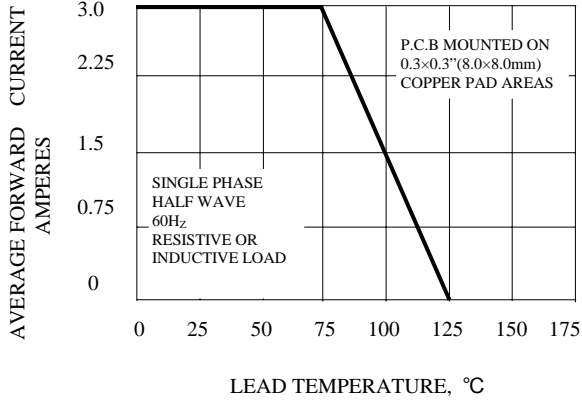


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

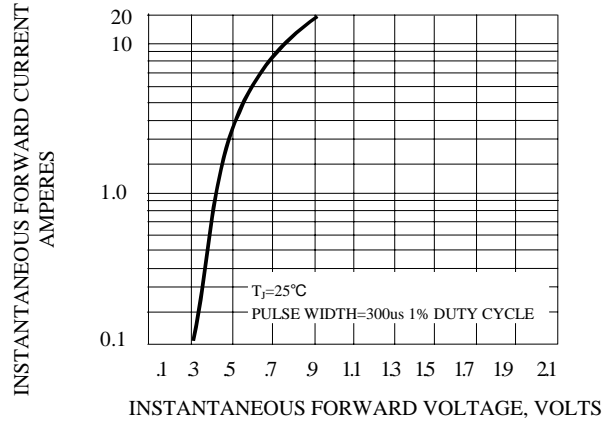


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

