

### 3.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS -20V- 40V SMA-L PACKAGE

#### FEATURES

- \* Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- \* Low profile surface mounted application in order to optimize board space.
- \* High current capability, low forward voltage drop.
- \* Ultra high-speed switching.
- \* Lead-free parts meet environmental standards of MIL-STD-19500/228
- \* RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"

#### MECHANICAL DATA

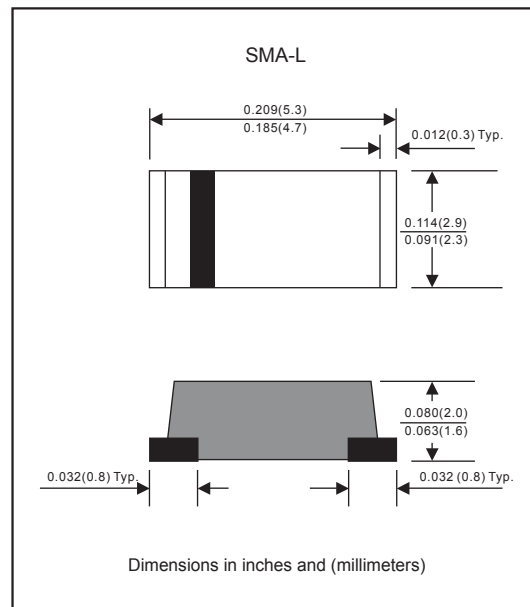
Case: Molded plastic, DO-214AC / SMA-L

Epoxy: UL 94V-O rate flame retardant

Terminals: Solder plated, solderable per  
MIL-STD-750, Method 2026.

Mounting position: Any

Weight: Approximated 0.05 gram.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

RATINGS		SYMBOL	FM5820AL	FM5821AL	FM5822AL	UNIT
Marking Code			SK32	SK33	SK34	
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	14	21	28	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	20	30	40	Volts
Maximum Average Forward Rectified Current		I <sub>o</sub>	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	80			Amps
Typical Thermal Resistance (Note 2)		R <sub>θJA</sub>	80			°C/W
Typical Junction Capacitance (Note 1)		C <sub>J</sub>	250			pF
Operating Temperature Range		T <sub>J</sub>	-55 to +125			°C
Storage Temperature Range		T <sub>sTG</sub>	-55 to +150			°C

CHARACTERISTICS		SYMBOL	FM5820AL	FM5821AL	FM5822AL	UNIT
Maximum Forward Voltage at 3.0A DC		V <sub>F</sub>	0.475	0.500	0.525	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T <sub>J</sub> =25°C	I <sub>R</sub>	0.5			mAmps
	@T <sub>J</sub> =100°C		20			

#### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance From Junction to Ambient

## RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

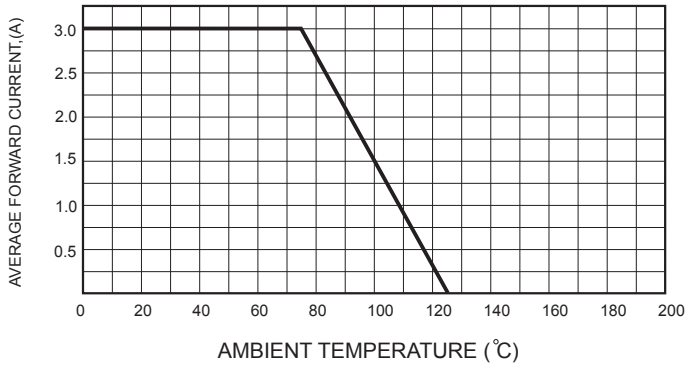


FIG.2-TYPICAL FORWARD CHARACTERISTICS

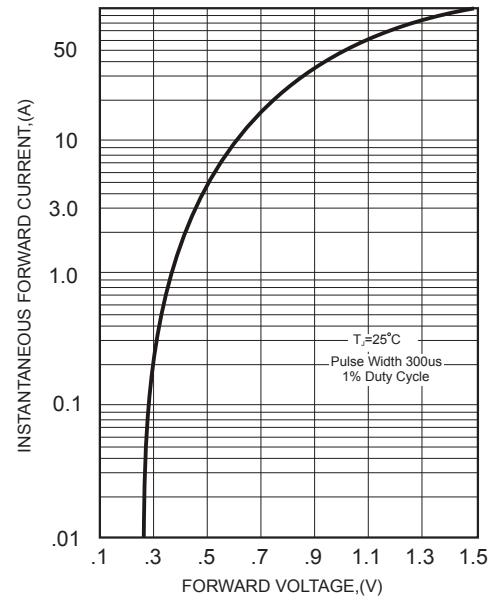


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

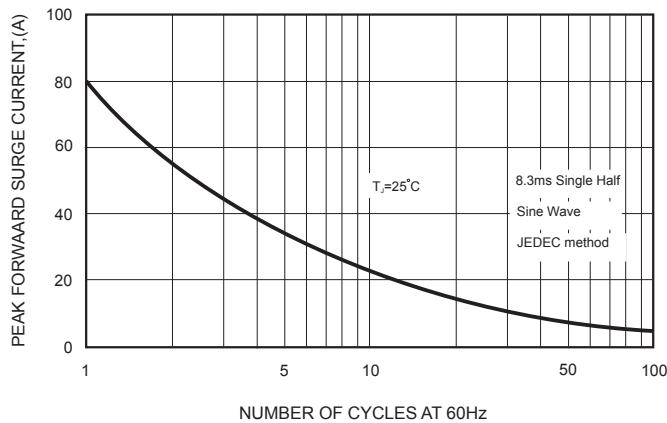


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

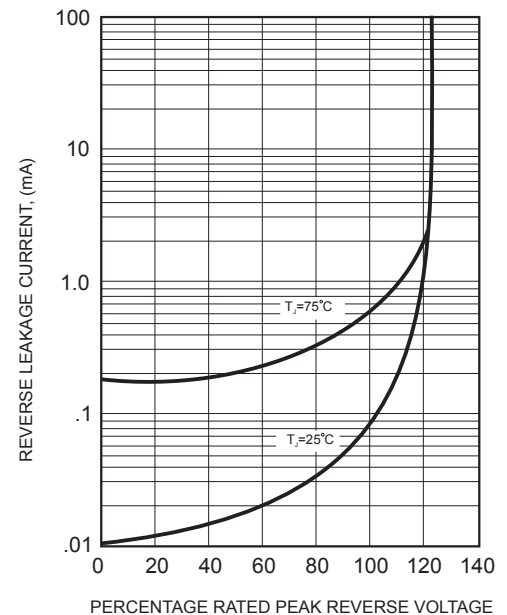


FIG.4-TYPICAL JUNCTION CAPACITANCE

