



# SHENZHEN FAITH TECHNOLOGY CO.,LTD

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

K32 THRU K310

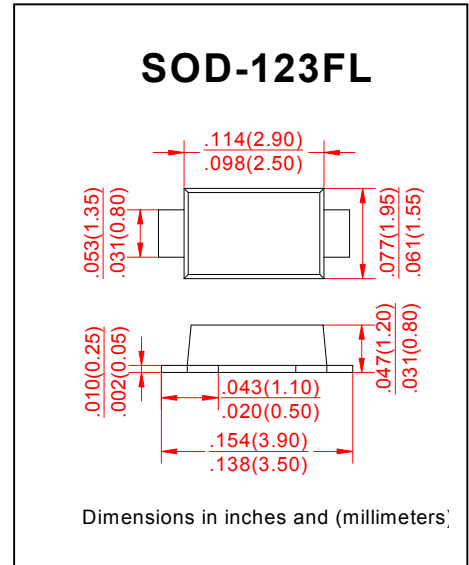
VOLTAGE RANGE 20 to 100 Volts  
CURRENT 3.0 Ampere

### FEATURES

- Low profile surface mount package
- Built-in strain relief
- High switching speed
- Low voltage drop, high efficiency
- For use in low voltage high frequency inverters, Free willing, and polarity protection applications
- Guarding for over voltage protection

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end



### 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%.

TYPE NUMBER	SYMBOLS	K32	K33	K34	K35	K136	K38	K39	K310	UNIT	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	Volts	
Maximum Average Forward Rectified Current at $T_L=105^\circ\text{C}$	$I_{(AV)}$	3.0								Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	80								Amps	
Maximum Instantaneous Forward Voltage @ 3.0A(Note1)	$V_F$	0.55			0.75		0.85			Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_A = 25^\circ\text{C}$	0.5								mA	
	$T_A = 100^\circ\text{C}$	20.0			10.0						
Operating Junction Temperature	$T_J$	(-55 to +125)			(-55 to +125)					$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	(-55 to +150)									$^\circ\text{C}$

### Notes:

1. Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle
2. PCB mounted with 0.2 $\times$ 0.2" (5.0  $\times$  5.0mm) copper pads



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

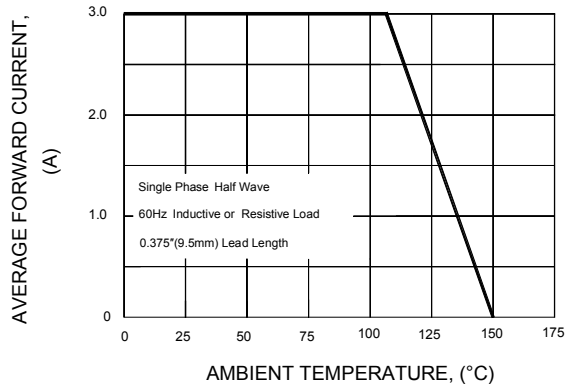


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

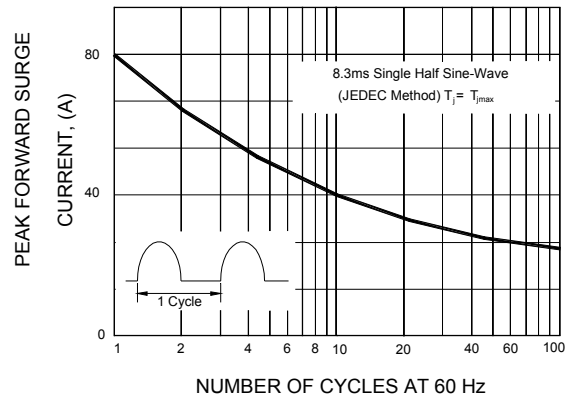


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

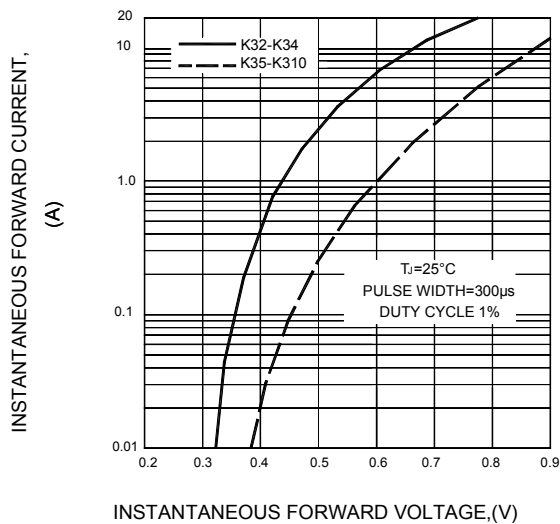


FIG.4-TYPICAL REVERSE CHARACTERISTICS

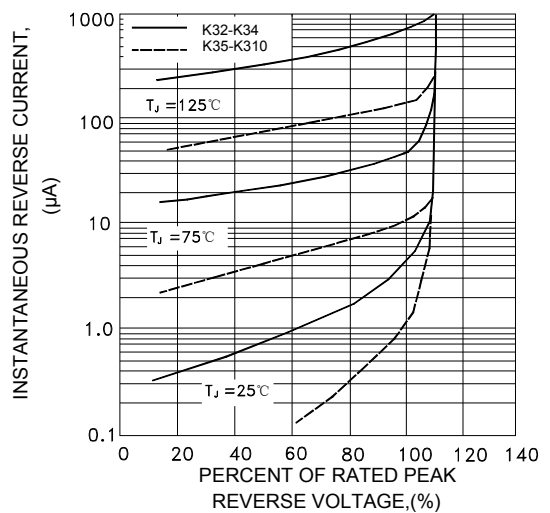


FIG.5-TYPICAL JUNCTION CAPACITANCE

