

# SK32      THRU      SK3A0

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

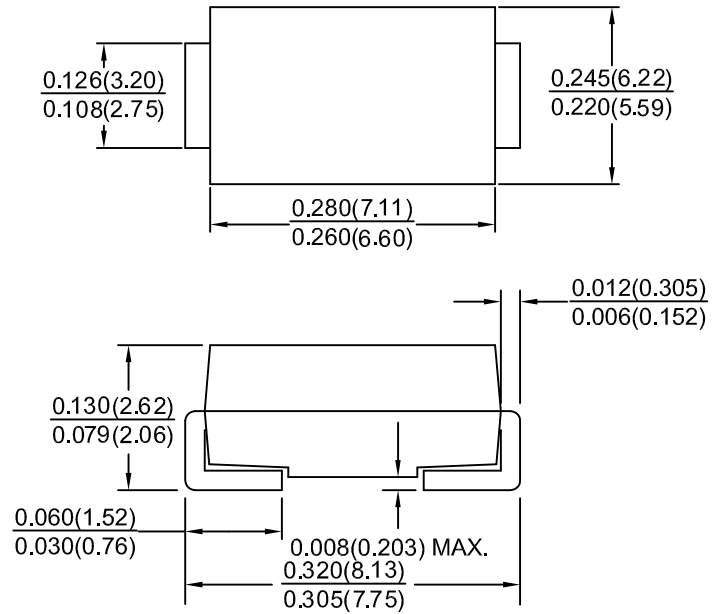
SMC/DO-214AB

### FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High surge capability
- High current capability, low forward voltage drop
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:  
250°C/10 seconds at terminals

### MECHANICAL DATA

Case: molded plastic body  
 Terminals: Solder plated, solderable per MIL-STD-705, Method 2026  
 Polarity: Color band on body denotes cathode end  
 Weight: 0.003 ounce, 0.093 grams



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temp. unless otherwise specified.  
 Single phase, half sine wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20 %.

Characteristic	Symbol	SK32	SK33	SK34	SK35	SK36	SK38	SK3A0	Units
		SK32	SK33	SK34	SK35	SK36	SK38	SK3A0	
		SS32	SS33	SS34	SS35	SS36	SS38	SS3A0	
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	Volts
Maximum DC voltage	$V_{DC}$	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{(AV)}$	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 drop per leg bridge element at 3.0 ADC (NOTE 3)	$V_F$	0.55		0.70		0.85		Volts	
Maximum DC reverse current (NOTE 3) $T_a=25^\circ C$ Maximum DC blocking voltage $T_a=100^\circ C$	$I_R$	0.5							mA
		20							
Typical junction capacitance (note 1)	$C_J$	500			200			Pf	
Typical thermal resistance (note 2)	$R_{\theta-JA}$	55.0							°C/W
Operating temperature range	$T_J$	-65 to +125							°C
Storage temperature range	$T_{stg}$	-65 to +150							°C

NOTE : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts  
 2. P.C.B mounted with 0.2x0.2(5.0mmx5.0mm) copper pad areas  
 3. Pulse test : 300 us pulse width, 1% duty cycle

# RATINGS AND CHARACTERISTIC CURVES SK32 THRU SK3A0

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

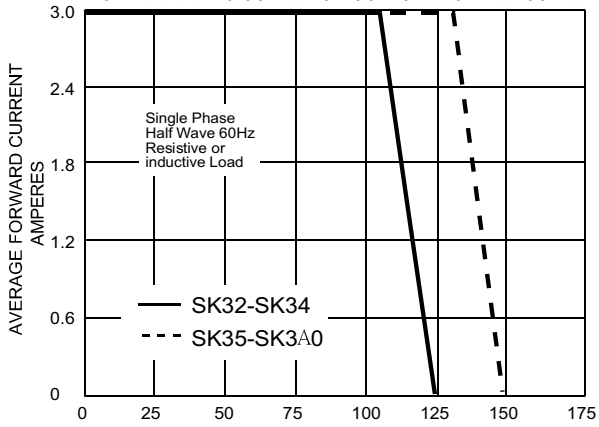


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

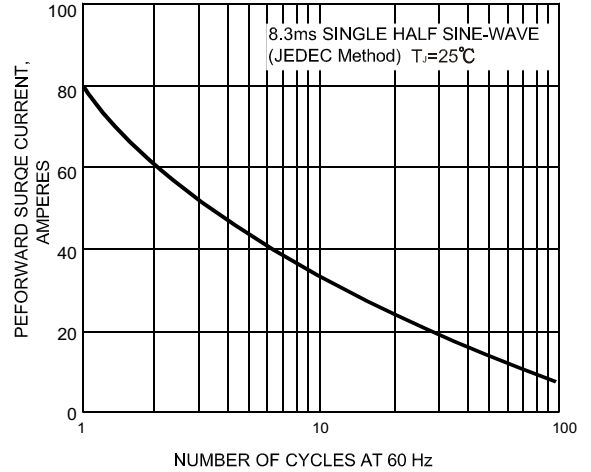


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

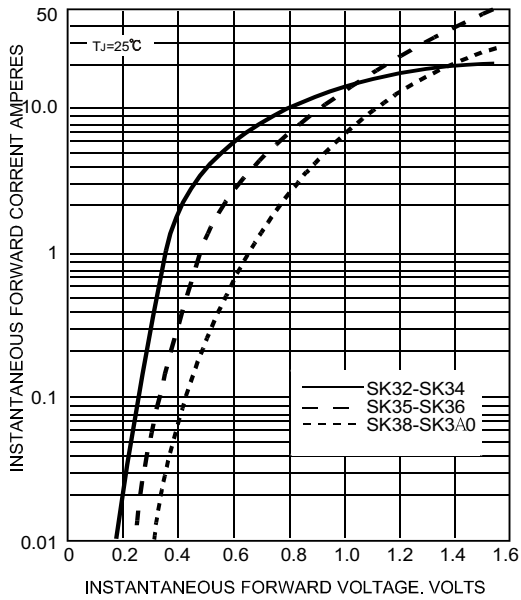


FIG.4-TYPICAL REVERSE CHARACTERISTICS

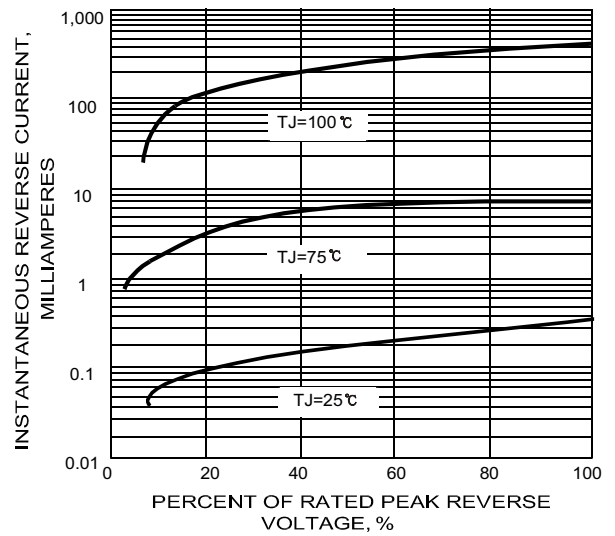


FIG.5-TYPICAL JUNCTION CAPACITANCE

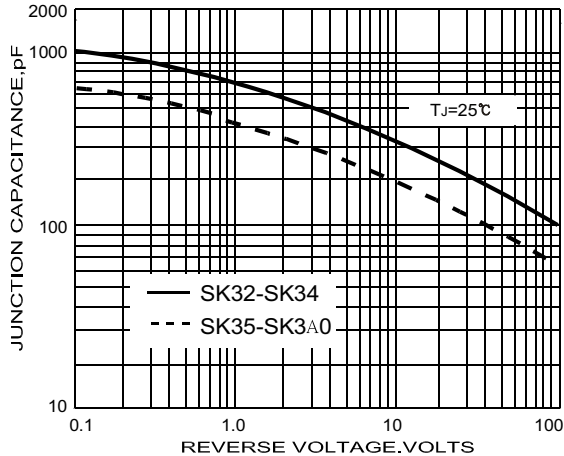


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

