

SURFACE MOUNT SCHOTTKY RECTIFIERS

FEATURES:

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

MECHANICAL DATA

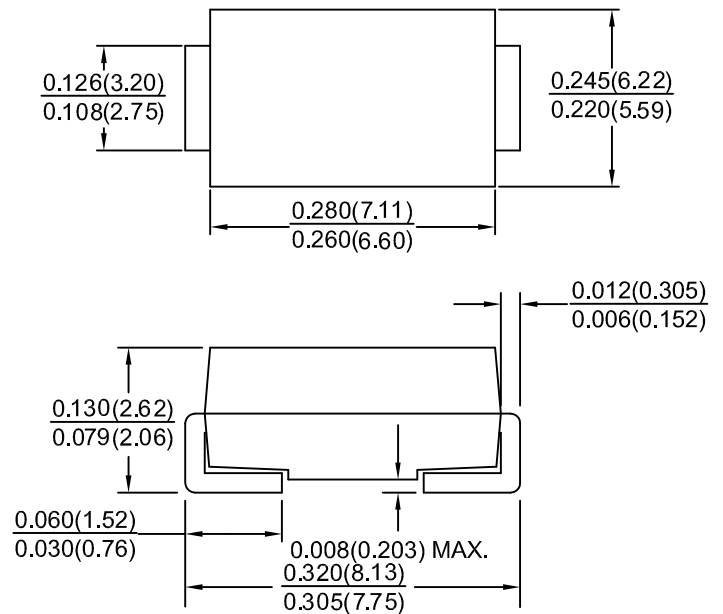
Case : JEDEC DO-214AB molded plastic body

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

Polarity : Color band on body denotes cathode end

Weight : 0.007 ounce, 0.021 grams

SMC/DO-214AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

Characteristic	Symbol	SK52	SK53	SK54	SK55	SK56	SK58	SK5A0	Units
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 blocking voltage	V _{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current at TL (See gigure 1)	I _(AV)	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100							Amps
Maximum Instantaneous forward voltage (NOTE 2) IF=5.0A	V _F	0.55			0.70		0.85		Volts
Maximum Instantaneous reverse current at rated DC blocking voltage (NOTE 2) Tc=25 °C Tc=100 °C	I _R	0.5 20							mA
Typical Junction Capacitance (NOTE 1)	C _J	550			400				P F
Operating temperature range	T _J	-65to+125							°C
Storage temperature range	T _{Stg}	-65to+125							°C

Note:

1.Measured at 1MHZ and applied reverse voltage of 4 VDC

2.Pulse test : 300 us pulse width, 1% duty cycle

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

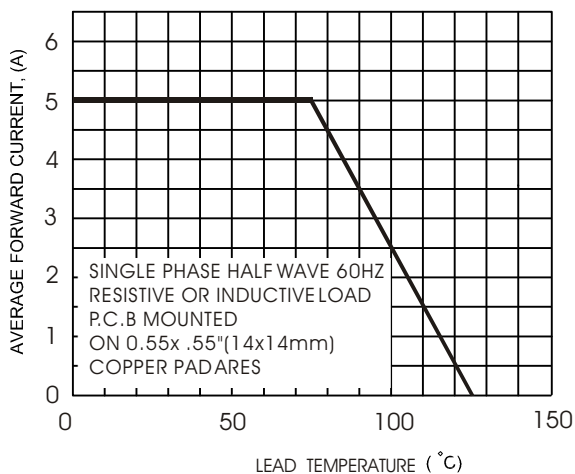


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

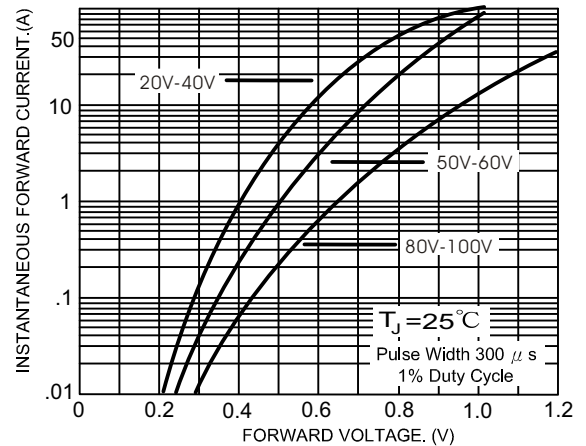


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

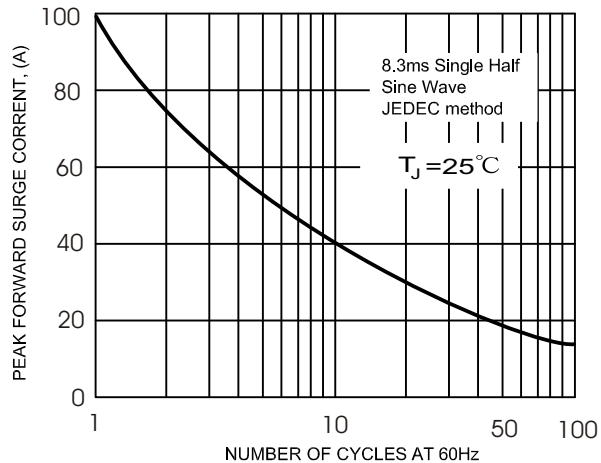


FIG.5- TYPICAL REVERSE CHARACTERISTICS

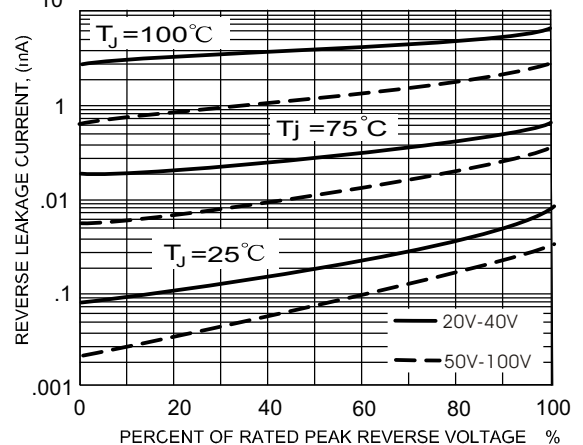


FIG.4- TYPICAL JUNCTION CAPACITANCE

