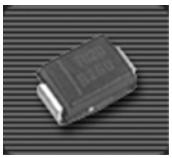
SK27 thru SK2B

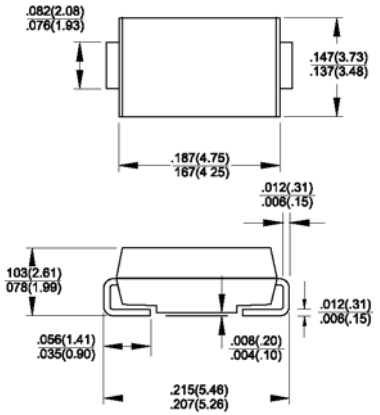
Surface Mount Schottky Barrier Rectifiers
Reverse Voltage 70 to 100 Volts Forward Current 2.0 Amperes

Features

- For surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Very low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



DO-214AA (SMB)



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC DO-214AA(SMB) molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.003 ounce, 0.093 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%

Parameter	Symbols	SK27	SK28	SK29	SK2B	Units
Maximum repetitive peak reverse voltage	V_{RRM}	70	80	90	100	Volts
Maximum RMS voltage	V_{RMS}	49	56	63	70	Volts
Maximum DC blocking voltage	V_{DC}	70	80	90	100	Volts
Maximum average forward rectified current @T_L =100°C	$I_{(AV)}$	2.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0				Amps
Maximum forward voltage at 2.0A DC @T_J= 25°C @T_J= 100°C	V_F	0.79 0.69				Volts
Maximum DC reverse current at rated DC blocking voltage @T_J= 25°C @T_J=100°C	I_R	0.5 15				mA
Typical junction capacitance (Note 1)	C_J	75				pF
Typical thermal resistance (Note 2)	$R_{\theta JL}$	15				°C/W
Operating junction temperature range	T_J	-55 to +125				°C
Storage remperature range	T_{STG}	-55 to +150				°C

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance Junction to Lead.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

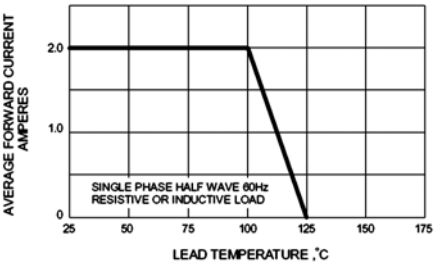


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

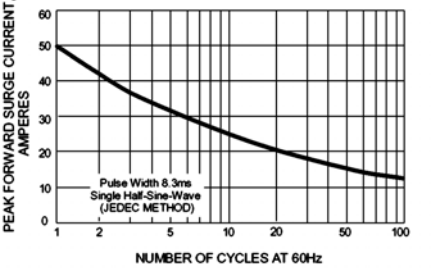


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

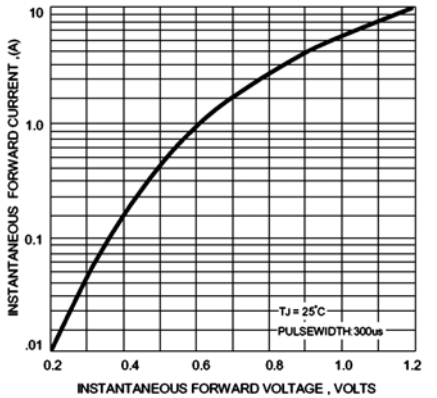


FIG.4 - TYPICAL JUNCTION CAPACITANCE

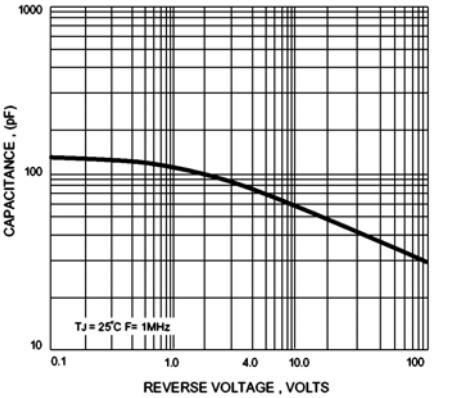


FIG.5 - TYPICAL REVERSE CHARACTERISTICS