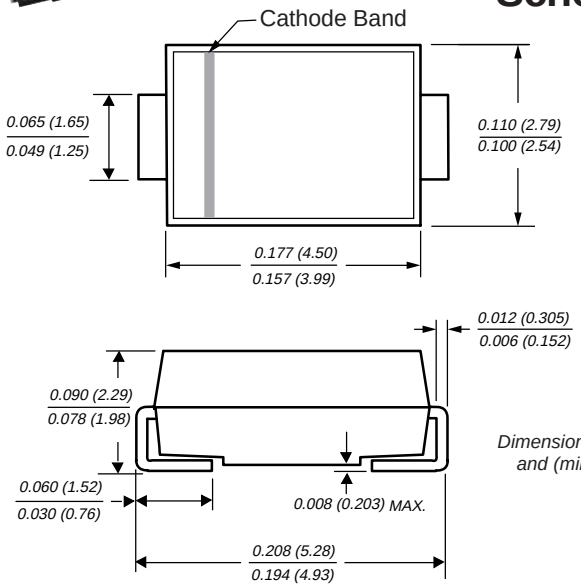
DO-214AC (SMA)

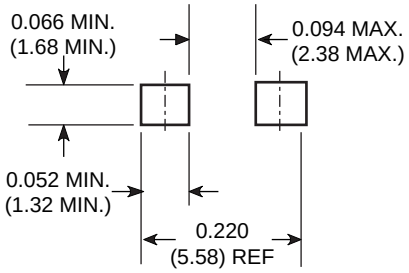
Low V_F Surface Mount Schottky Rectifier

Reverse Voltage 20 to 30V
Forward Current 1.5A



Dimensions in inches and (millimeters)

Mounting Pad Layout



Mechanical Data

Case: JEDEC DO-214AC molded plastic body
Terminals: solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.002 ounce 0.064 gram

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SL12	SL13	Unit
Device marking code		SL2	SL3	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	V
Maximum RMS voltage	V_{RMS}	14	21	V
Maximum DC blocking voltage	V_{DC}	20	30	V
Maximum average forward rectified current at T_L (SEE FIG.1)	$I_{F(AV)}$	1.5		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50		A
Maximum thermal resistance (2)	$R_{\Theta JA}$ $R_{\Theta JL}$	88 28		°C/W
Operating junction temperature range	T_J	–55 to +125		°C
Storage temperature range	T_{STG}	–55 to 150		°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter		Symbol	SL12	SL13	Unit
Maximum instantaneous forward voltage at (NOTE 1)	I_F=0.1A, T_A=125°C I_F=0.1A, T_A=25°C I_F=1.0A, T_A=125°C I_F=1.0A, T_A=25°C	V_F	0.230 0.360 0.340 0.445		V
Maximum DC reverse current (1) at rated DC blocking voltage	T_A=25°C T_A=100°C	I_R	0.2 6.0		mA

Notes: (1) Pulse test: 300μs pulse width, 1% duty cycle
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

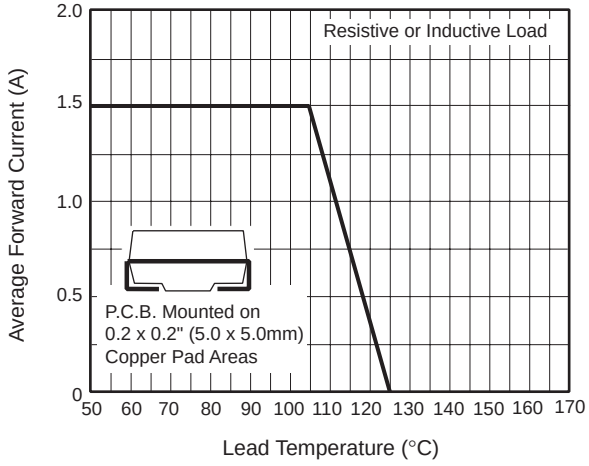


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

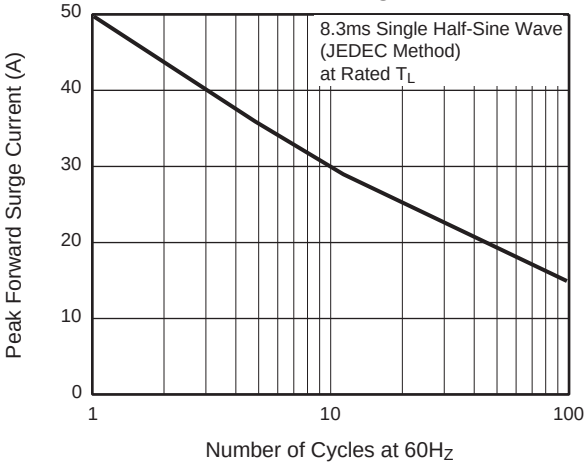


Fig. 3 – Typical Instantaneous Forward Characteristics

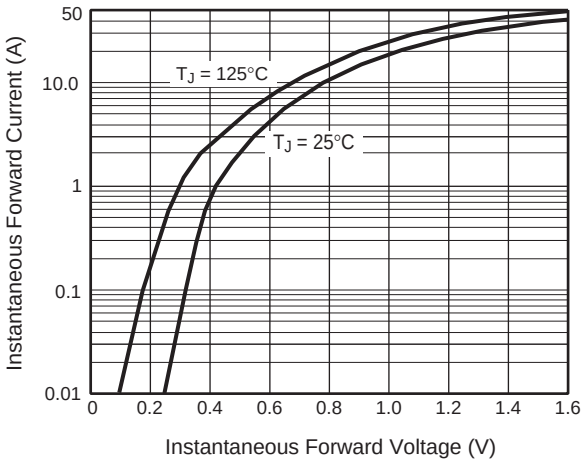


Fig. 4 – Typical Reverse Characteristics

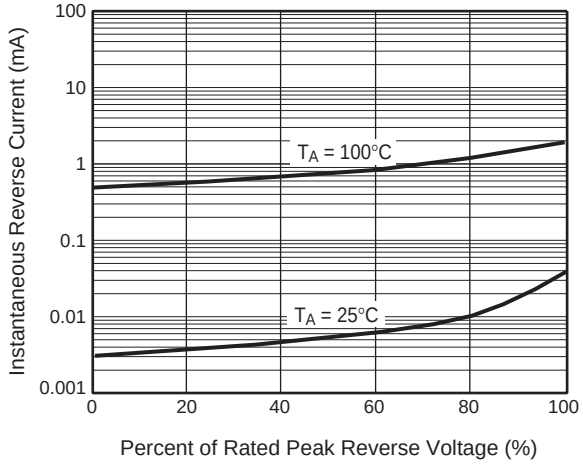


Fig. 5 – Typical Junction Capacitance