

1.0 A Surface Mount Schottky Barrier Rectifier
Rectifier Reverse Voltage 20,30,40V



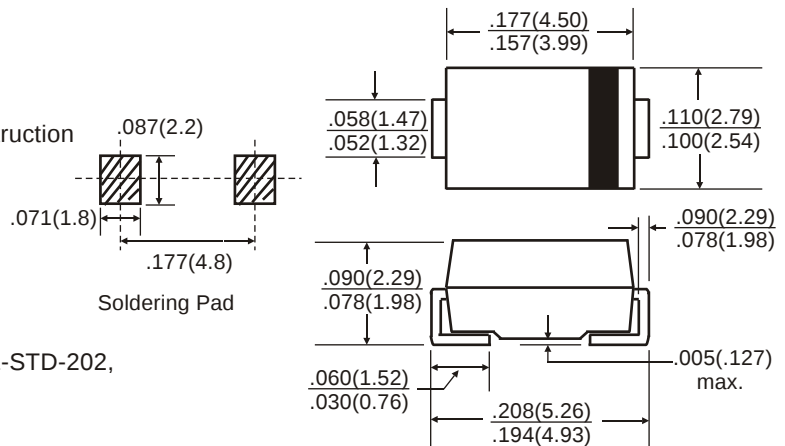
SMA / DO-214AC

Features

- For surface mount application
- Extremely low VF
- Epitaxial construction
- Low power loss, high efficiency
- Low stored charge, majority carrier construction
- Plastic material has UL flammability classification 94V-0

Mechanical Data

Case: Molded plastic
Terminals: Solder plated solderable per MIL-STD-202, Method 208
Polarity: Cathode indicated with color band
Weight: 0.063 grams (approx)



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	SM5817	SM5818	SM5819	unit
Maximum recurrent peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	V
Maximum average forward rectified current at T _L =90°C (see fig.1)	IF(AV)	1.0			A
Peak forward surge current, single sine-wave superimposed on rated load (JEDEC Method)	IFSM	25			A
Typical thermal resistance	ReJA	50			°C/W
Typical junction capacitance	Cj	70			pF
Operating junction	TJ	-55 to + 125			°C
Storage temperature range	TSTG	-55 to + 150			°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	SM5817	SM5818	SM5819	Unit
Maximum instantaneous forward voltage drop at 1.0A	VF	0.45	0.55	0.60	V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =100°C	IR	1.0 10.0			mA

Rating and Characteristic Curves ($T_A = 25^{\circ}\text{C}$ Unless otherwise noted)

SM5817 thru SM5819

Fig. 1 Forward Current Derating Curve

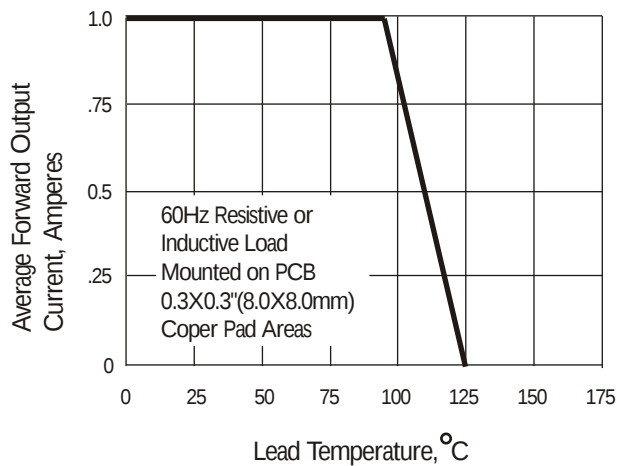


Fig. 2 Typical Instantaneous Forward Characteristics

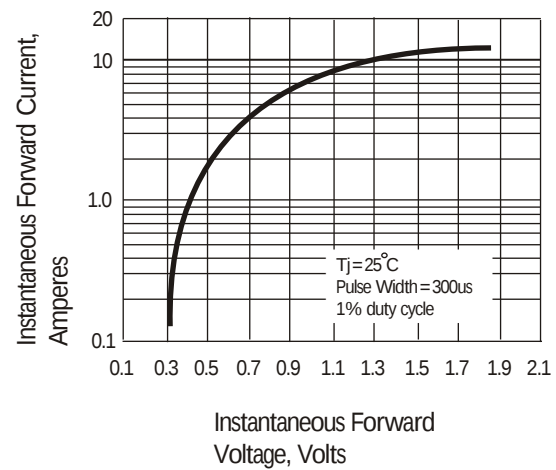


Fig. 3 Typical Reverse Characteristics

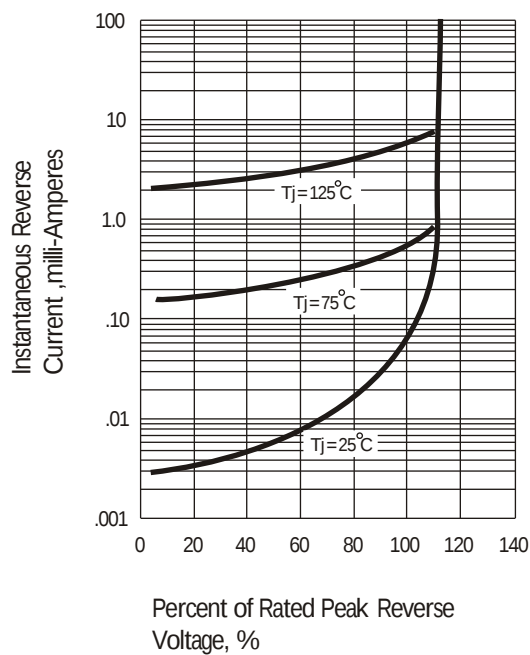


Fig. 4 Maximum Non-repetitive Forward Surge Current

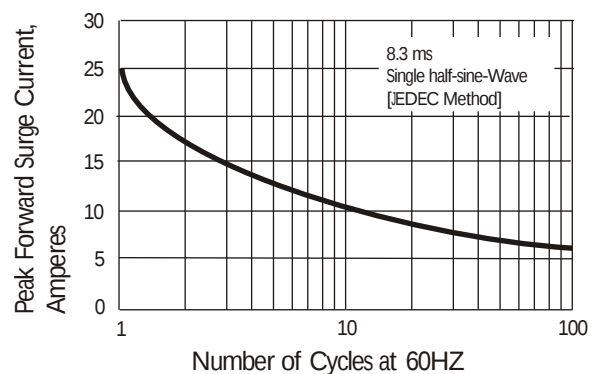


Fig. 5 Typical Junction Capacitance

