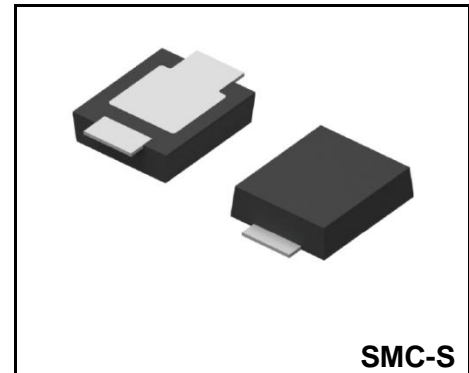


Trench MOS Barrier Schottky Rectifier

Reverse Voltage - 300 V

Forward Current - 10 A



FEATURES

- ◆ Advanced trench technology
- ◆ Low forward voltage drop
- ◆ Low power losses
- ◆ High efficiency operation
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SMC-S
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Parameter		Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	300	V
Maximum RMS voltage		V_{RMS}	300	V
Maximum DC Blocking Voltage		V_{DC}	300	V
Maximum Average Forward Rectified Current	Per diode	$I_{F(AV)}$	10	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave superimposed on rated load per diode		I_{FSM}	220	A
Operating Temperature Range		T_J	-65 ~ +175	°C
Storage Temperature Range		T_{STG}	-65 ~ +175	°C
Typical Thermal Resistance Per diode(munted on FR-4 PCB)	SMC-S	$R_{\theta JC}$	25	°C/W

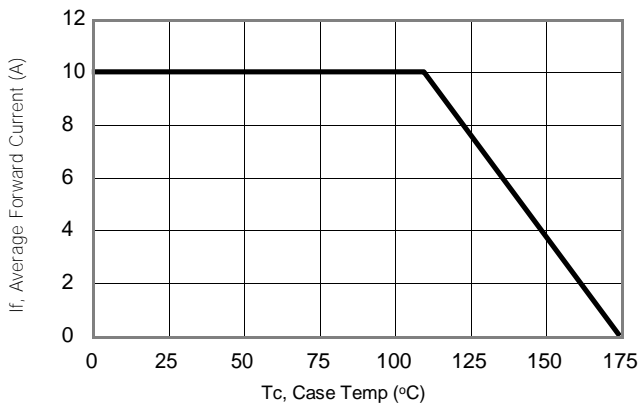
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

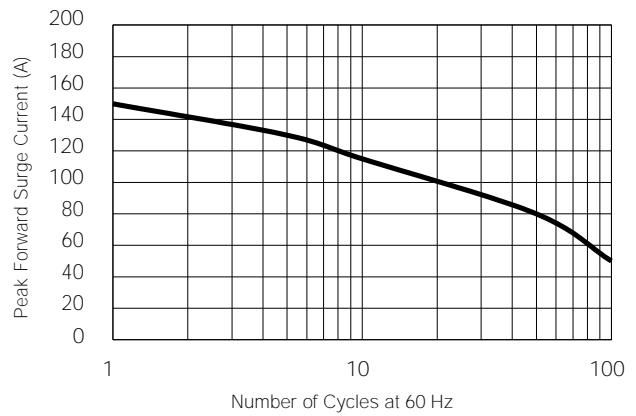
Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at $I_F=3A$ Instantaneous forward voltage per diode	TA=25°C		0.72	-	
	TA=125°C		0.66	0.79	
at $I_F=10A$ Instantaneous forward voltage per diode	TA=25°C		0.80	0.86	
	TA=125°C	-	0.79		
Instantaneous reverse current per diode at rated reverse voltage	TA=25°C	I_R	1	5	uA
	TA=125°C		-	80	mA

Note2: (1)Pulse test: 300 μs pulse width, 1 % duty cycle
(2) Pulse test: Pulse width ≦ 40 ms

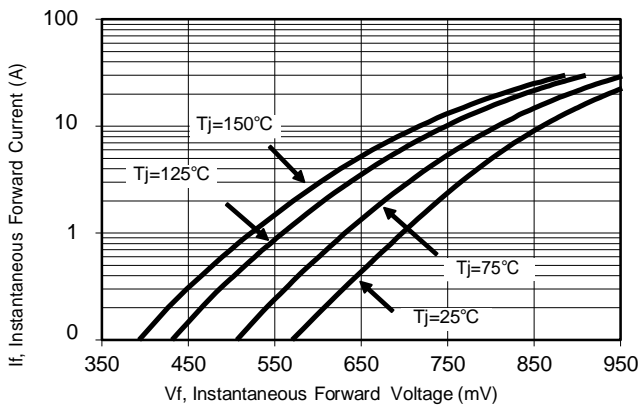
RATINGS AND CHARACTERISTIC CURVES



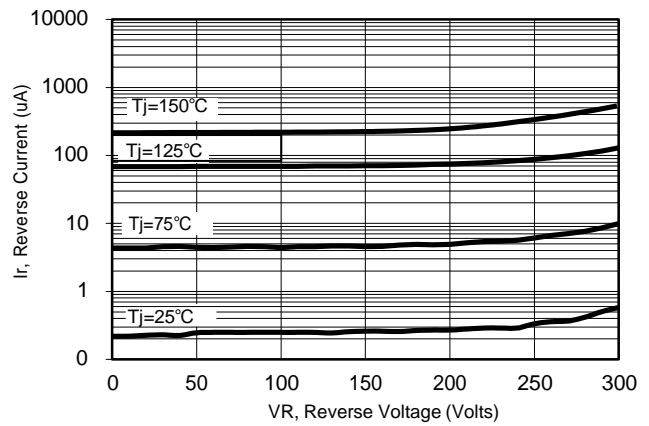
Current Derating, Case



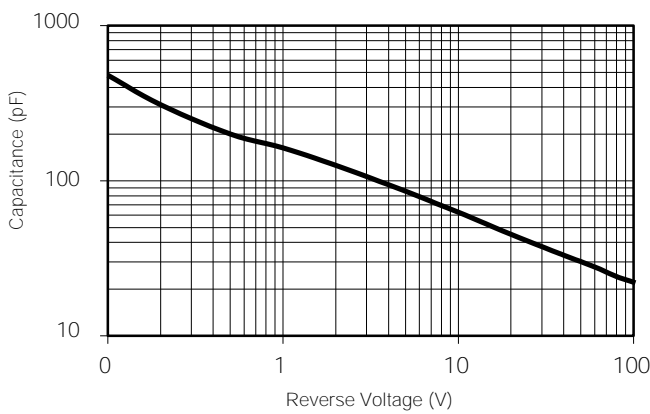
Maximum Repetitive Surge Current



Typical Forward Voltage



Typical Reverse Current

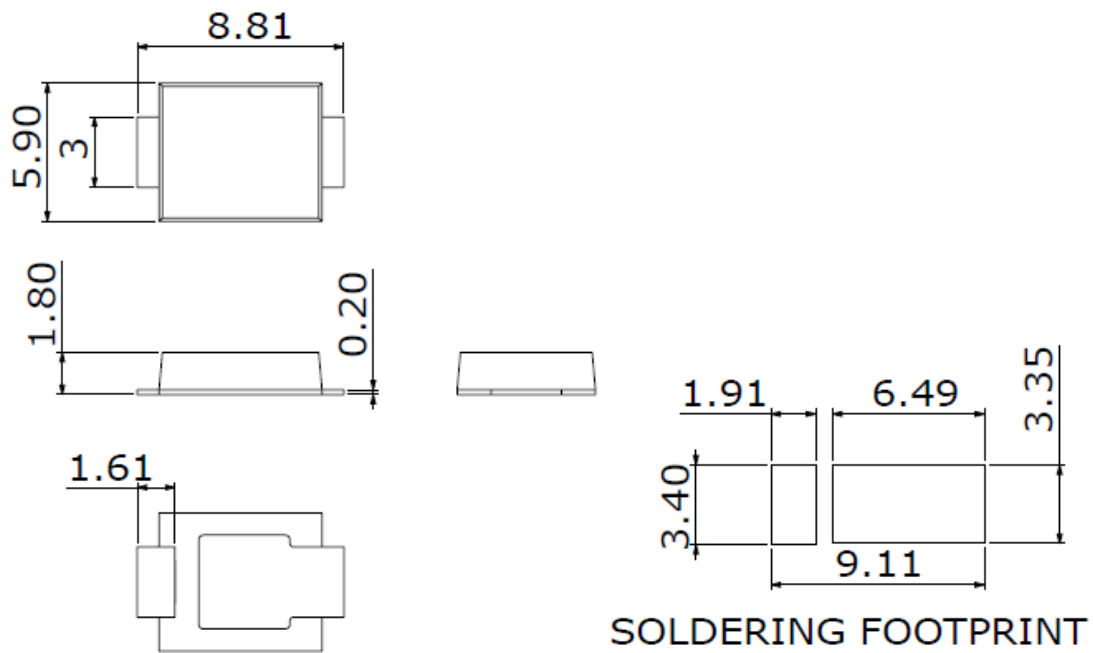


Typical Junction Capacitance

Package Outline

DO-214AB SMC-S

Plastic surface mounted package; 2 leads



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-214AB SMC-S	Tape/Reel, 13" reel	3000	EIA-481-1