

Trench MOS Barrier Schottky Rectifier

Reverse Voltage - 300 V

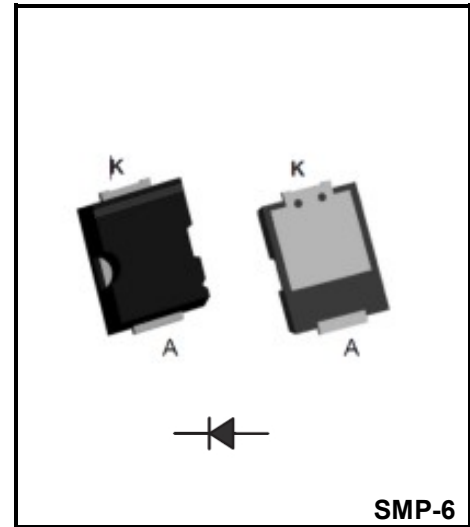
Forward Current - 5 A

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: SMP6
- ◆ 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	$I_{F(AV)}$	5	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave superimposed on rated load per diode		I_{FSM}	100	A
Operating Temperature Range		T_J	-65 ~ +175	°C
Storage Temperature Range		T_{STG}	-65 ~ +175	°C
Typical Thermal Resistance ^(Note1) SMP6		$R_{\theta JC}$	25	°C/W

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

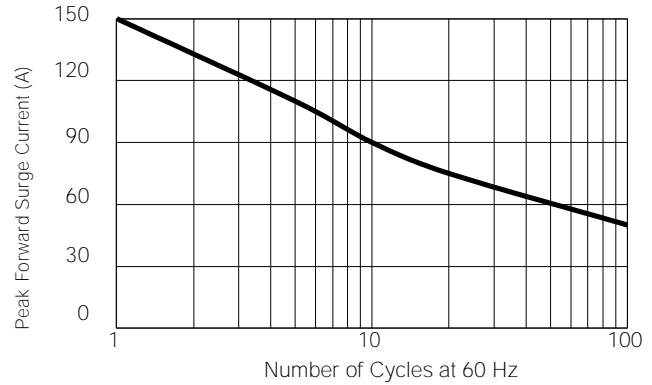
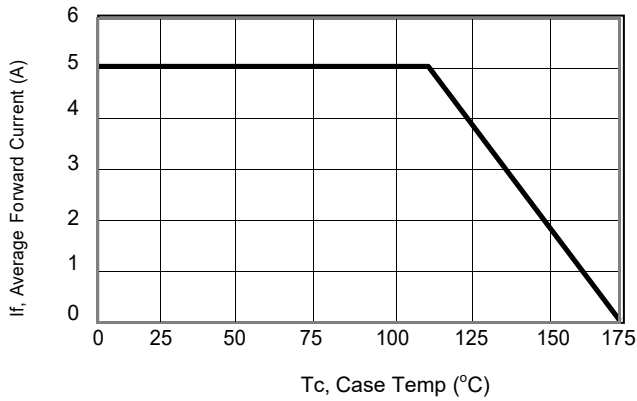
Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at $I_F=1A$	TA=25°C		0.71	-	
	TA=125°C		0.66	-	
at $I_F=5A$	TA=25°C		0.84	0.90	
	TA=125°C		0.78	-	
Instantaneous reverse current per diode at rated reverse voltage	TA=25°C		I_R	1	
	TA=125°C	-		200	uA

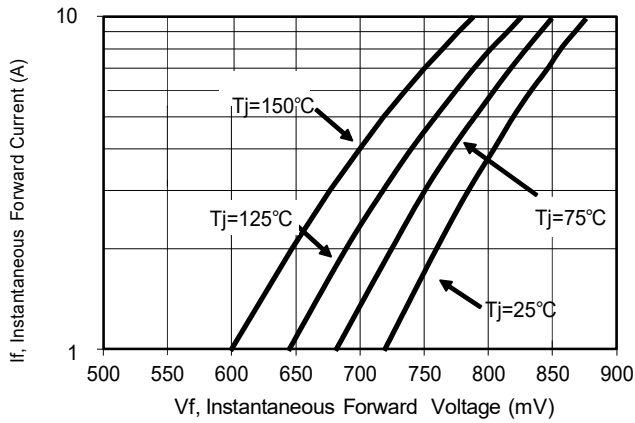
Note2: (1)Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

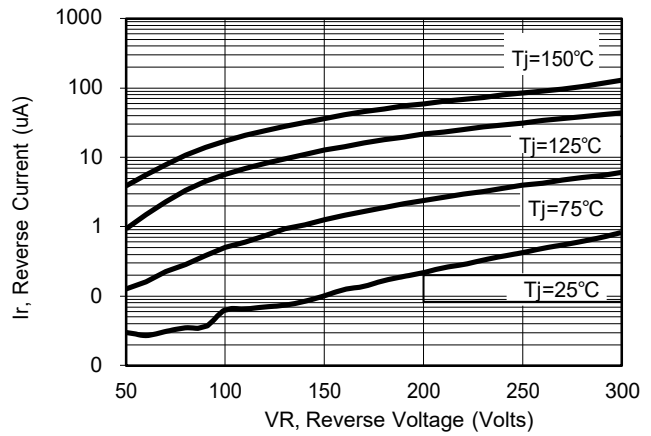
RATINGS AND CHARACTERISTIC CURVES



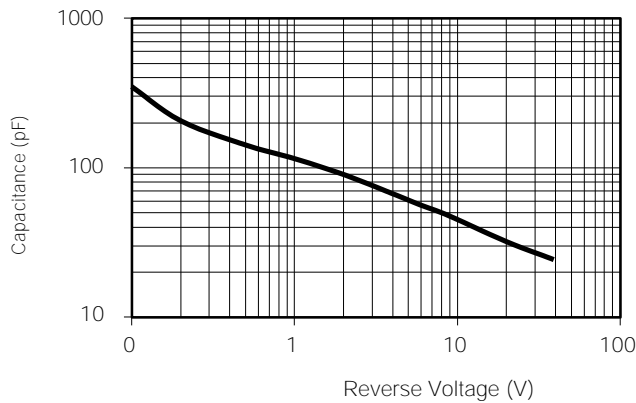
Current Derating, Case



Maximum Repetitive Surge Current



Typical Forward Voltage



Typical Reverse Current

Typical Junction Capacitance

Marking Diagram

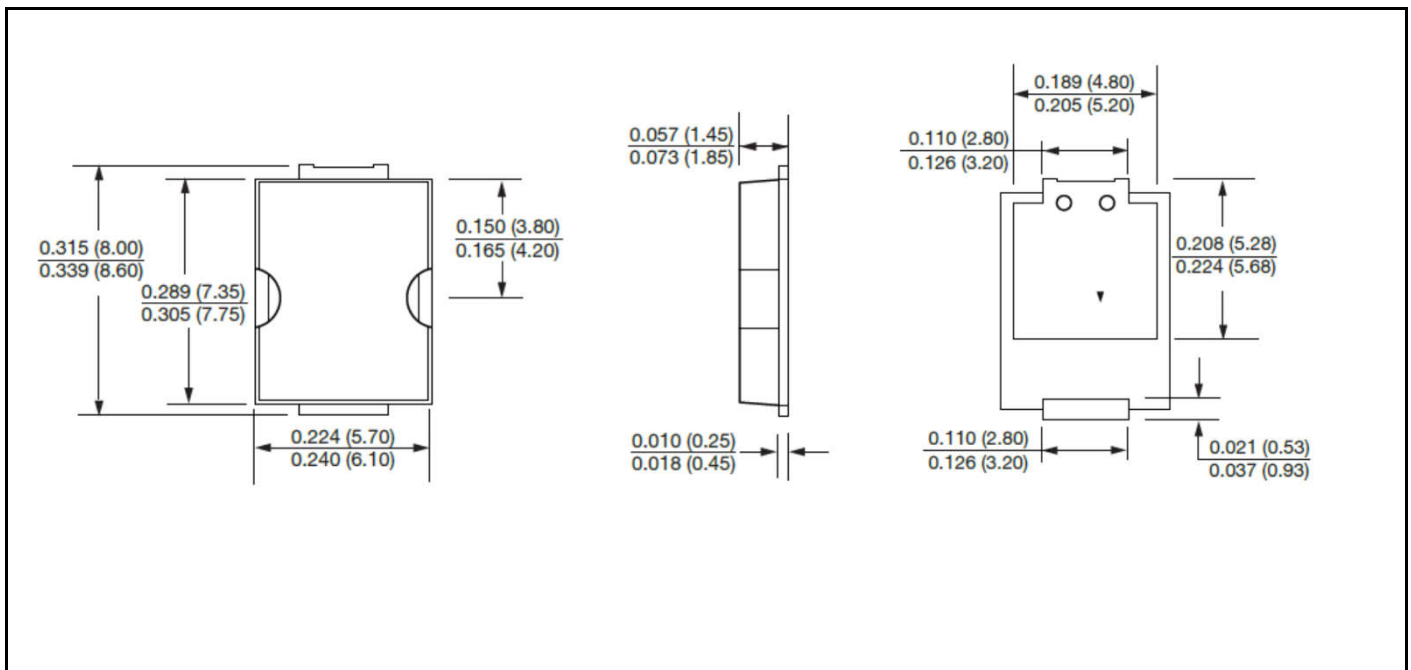


Ordering information

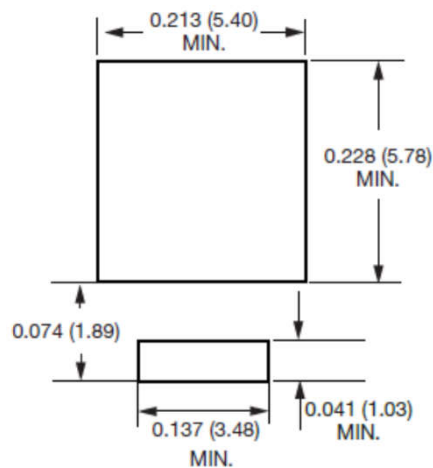
Package	Packing Description	Packing Quantity
SMP-6	Tape/Reel,13"reel	3000PCS/Reel 30000PCS/Carton

Package Dimensions(Millimeter/ Inches)

SMP-6



The recommended mounting pad size(Millimeter/ Inches)



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