

**TECHNICAL DATA
DATA SHEET****Power Surface Mount Schottky Rectifier
(45V, 60Amp)****Applications:**

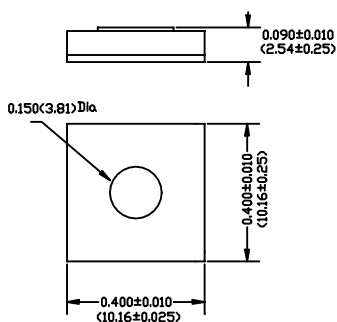
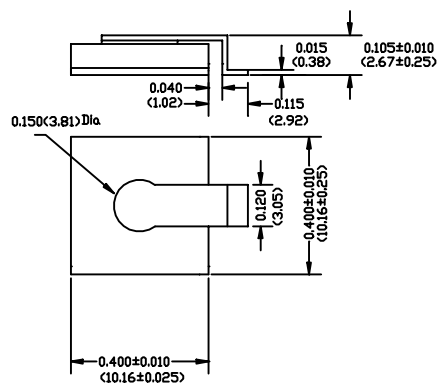
- Switching power supplies • Converters • Reverse battery protection
- Redundant power subsystems • Many other high current AC/DC power supplies.

Features:

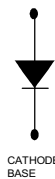
- 175°C T_J operation
- Low forward voltage drop
- Low reverse leakage current
- High surge capacities
- Low power loss, high efficiency
- Guaranteed reverse avalanche capability
- High frequency operation
- Low profile surface mount package

Mechanical Dimensions: In Inches / mm

Case Styles	
 SPD-2	 SPD-2A

**SPD-2****SPD-2A**

ANODE

CATHODE
BASE**Suffix "R" Denotes Reversed Polarity**

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	45	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	60	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, Sine pulse	860	A
Non-Repetitive Avalanche Energy	E_{AS}	$T_J = 25\text{ }^{\circ}\text{C}$, $I_{AS} = 8.0\text{ A}$, $L = 1.7\text{ mH}$	54	mJ
Repetitive Avalanche Current	I_{AR}	I_{AS} decay linearly to 0 in $1\text{ }\mu\text{s}$ f limited by T_J max $V_A = 1.5V_R$	8.0	A

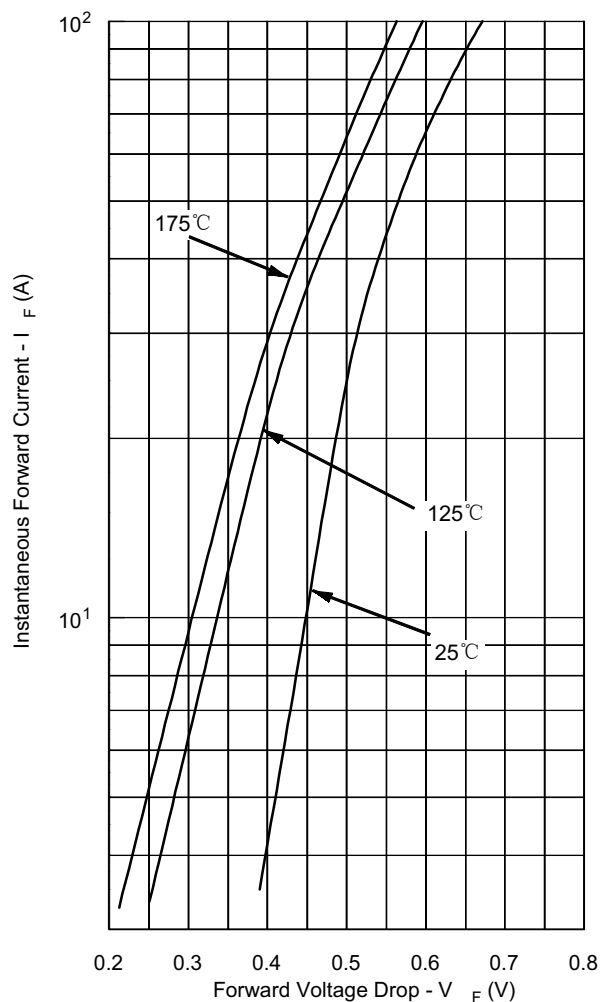
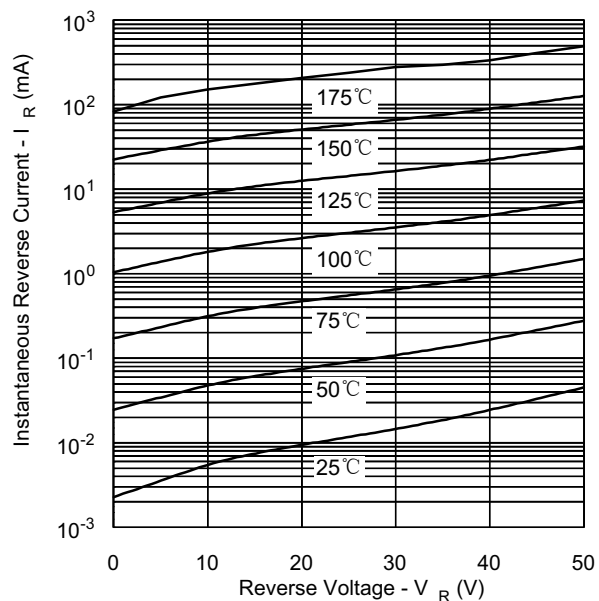
Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 60A, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	0.66	V
	V_{F2}	@ 60A, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$	0.59	V
Max. Reverse Current	I_{R1}	@ $V_R = 45\text{ V}$, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	1.2	mA
	I_{R2}	@ $V_R = 45\text{ V}$, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$	45	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{ V}$, $T_C = 25\text{ }^{\circ}\text{C}$ $f_{SIG} = 1\text{ MHz}$, $V_{SIG} = 50\text{ mV (p-p)}$	2400	pF

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +175	$^{\circ}\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +175	$^{\circ}\text{C}$
Max. Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.37	$^{\circ}\text{C/W}$
Case Style	PowerPak Surface Mount *			

* Different anode lead-out options available

**Typical Forward Characteristics****Typical Reverse Characteristics****Typical Junction Capacitance**