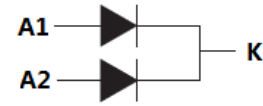


**Main Product Characteristics:**

IF	2x30A
VRRM	200V
Tj(max)	175°C
Vf(max)	0.76V



A1 K A2

**TO247**
**SSMD60200PT**

**Schematic Diagram**
**Features and Benefits:**

- High Junction Temperature
- High ESD Protection
- High Forward & Reverse Surge capability


**Description:**

Schottky Barrier Rectifier designed for high frequency switch model power supplies such as adaptors and DC/DC converters; this product special design for high forward and reverse surge capability

**Absolute Rating:**

Symbol	Characterizes	Value	Unit
$V_{RRM}$	Peak Repetitive Reverse Voltage	200	V
$V_{R(RMS)}$	RMS Reverse Voltage	140	V
$I_{F(AV)}$	Average Forward Current	Per diode	30
		Per device	60
$I_{FSM}$	Non Repetitive Surge Forward Current( $t_p=8.3ms$ sinusoidal)	300	A
$I_{RRM}$	Peak Repetitive Reverse Surge Current( $T_p=2us$ )	0.5	A
$T_J$	Maximum operation Junction Temperature Range	-55~175	°C
$T_{stg}$	Storage Temperature Range	-55~175	°C

**Thermal Resistance**

Symbol	Characterizes	Value	Unit
$R_{\theta JC}$	Maximum Thermal Resistance Junction To Case (per leg)	1.2	°C/W

**Electrical Characterizes @ $T_A=25^\circ C$  unless otherwise specified**

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
$V_R$	Reverse Breakdown Voltage	200			V	$I_R=0.5mA$
$V_F$	Forward Voltage Drop			0.85	V	$I_F=15A, T_J=25^\circ C$
				0.92		$I_F=30A, T_J=25^\circ C$
				0.76		$I_F=30A, T_J=125^\circ C$
$I_R$	Leakage Current			0.1	mA	$V_R=200V, T_J=25^\circ C$
				5		$V_R=200V, T_J=125^\circ C$
trr	Reverse recovery time		28	35	ns	$I_F=30A, di/dt=100A/us, V_R=30V$
Irrm	Peak recovery current		1.2	2	A	

I-V Curves:

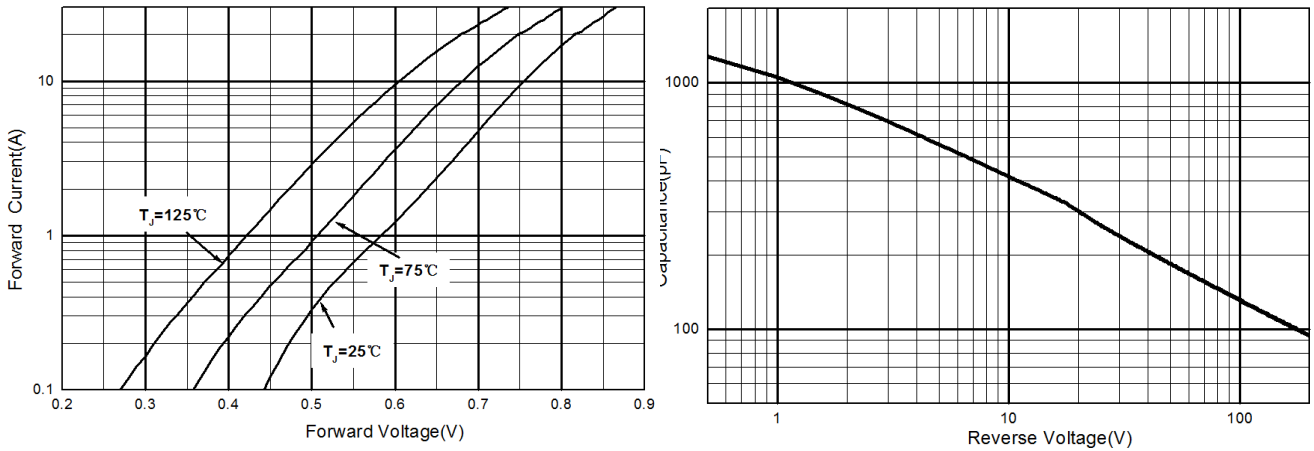


Figure 1: Typical Forward Characteristics      Figure 2: Typical Capacitance Characteristics

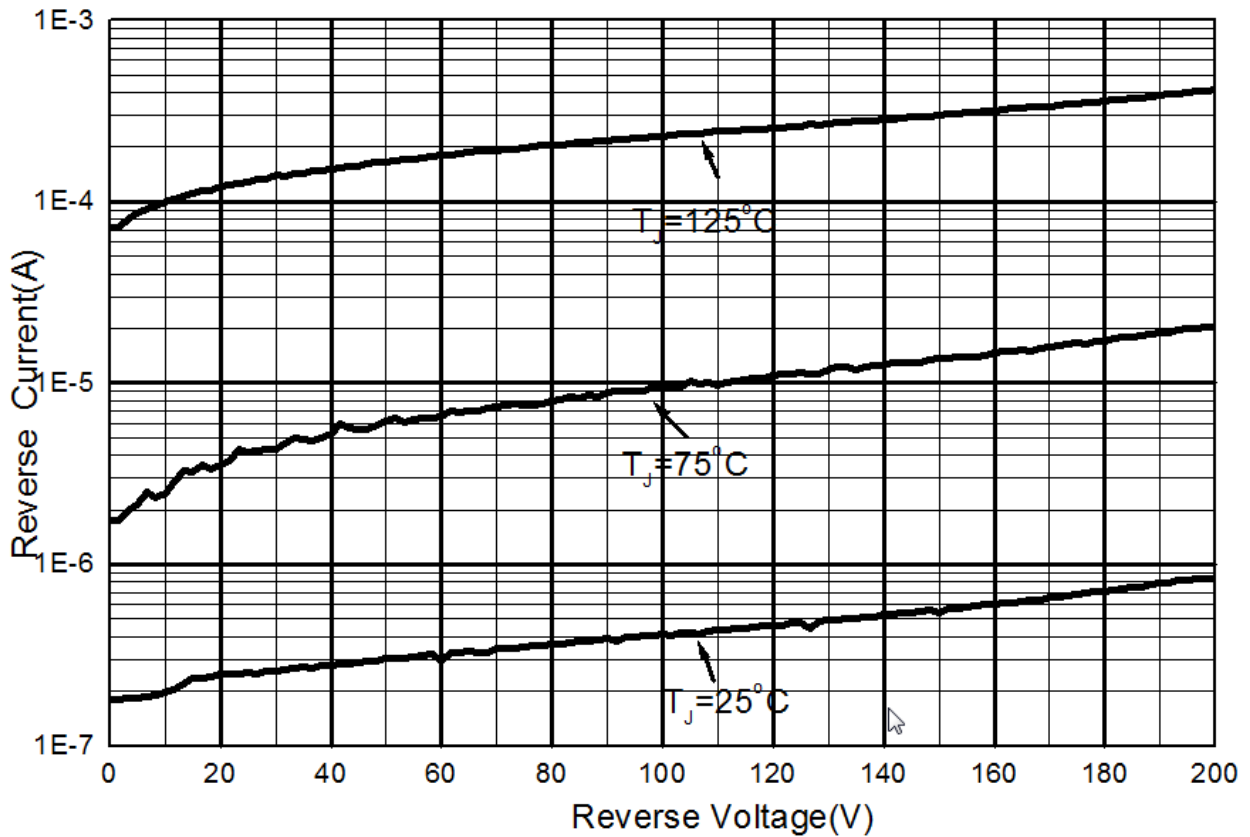
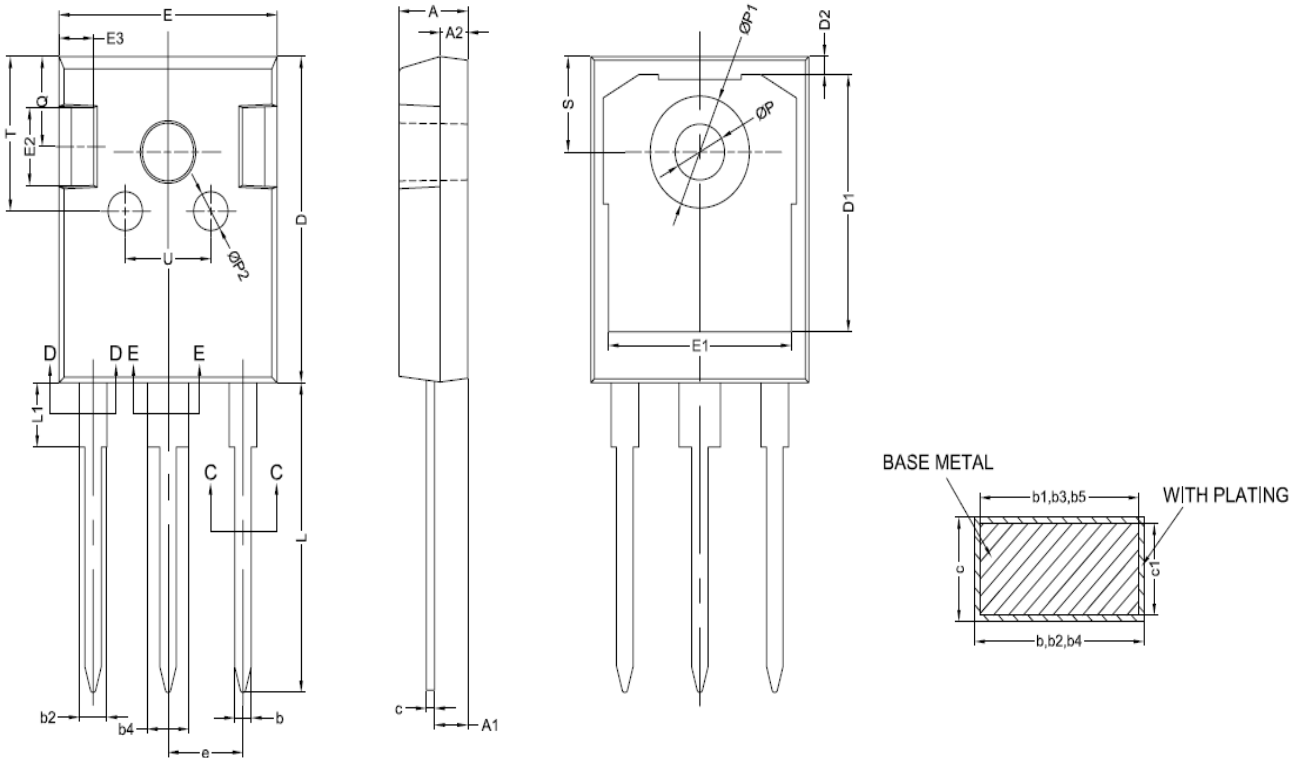


Figure 3: Typical Reverse Characteristics

**Mechanical Data:**
**TO247:**


Symbol	Dimension In Millimeters			Dimension In Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.900	5.000	5.100	0.193	0.197	0.201
A1	2.300	2.405	2.510	0.091	0.095	0.099
A2	1.900	2.000	2.100	0.075	0.079	0.083
b	1.160	-	1.260	0.046	-	0.050
b1	1.150	1.185	1.220	0.045	0.047	0.048
b2	1.960	-	2.060	0.077	-	0.081
b3	1.950	1.985	2.020	0.077	0.078	0.080
b4	2.960	-	3.060	0.117	-	0.120
b5	2.950	2.985	3.020	0.116	0.118	0.119
c	0.590	-	0.660	0.023	-	0.026
c1	0.580	0.600	0.620	0.023	0.024	0.024
D	20.900	21.000	21.100	0.823	0.827	0.831
D1	16.250	16.550	16.850	0.640	0.652	0.663
D2	1.050	1.200	1.350	0.041	0.047	0.053
E	15.700	15.800	15.900	0.618	0.622	0.626
E1	13.100	13.300	13.500	0.516	0.524	0.531
E2	4.900	5.000	5.100	0.193	0.197	0.201
E3	2.400	2.500	2.600	0.094	0.098	0.102
e	5.44BSC			0.214BSC		
L	19.800	19.950	20.100	0.780	0.785	0.791
L1	-	-	4.300	-	-	0.169
P	3.500	3.600	3.700	0.138	0.142	0.146
P1	-	-	7.400	-	-	0.291
P2	2.400	2.500	2.600	0.094	0.098	0.102
Q	5.600	-	6.000	0.220	-	0.236
S	6.15BSC			0.242BSC		
T	9.800	-	10.200	0.386	-	0.402
U	6.000	-	6.400	0.236	-	0.252

**Ordering and Marking Information**
**Device Marking: SSMD60200PT**
**Package (Available)**
**TO-247**
**Operating Temperature Range**
**C : -55 to 175 °C**
**Devices per Unit**

<b>Package Type</b>	<b>Units/Tube</b>	<b>Tubes/Inner Box</b>	<b>Units/Inner Box</b>	<b>Inner Boxes/Carton Box</b>	<b>Units/Carton Box</b>
<b>TO247</b>	30	20	600	10	6000

**Reliability Test Program**

<b>Test Item</b>	<b>Conditions</b>	<b>Duration</b>	<b>Sample Size</b>
<b>High Temperature Reverse Bias(HTRB)</b>	<b>Tj=125°C to 175°C @ 80% of Max VDSS/VCES/VR</b>	<b>168 hours 500 hours 1000 hours</b>	<b>3 lots x 77 devices</b>

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