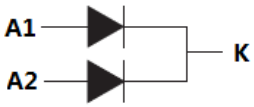
Main Product Characteristics:

IF	2×20A
VRRM	100V
T_j(max)	150℃
Vf(max)	0.7V

TO247

SSTS40100PT



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 convertors; this product special design for high forward and reverse surge capability

Absolute Rating:

Symbol	Characterizes		Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage		100	V
$V_{R(RMS)}$	RMS Reverse Voltage		70	V
$I_{F(AV)}$	Average Forward Current	Per diode	20	A
		Per device	40	A
I_{FSM}	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)		250	A
I_{RRM}	Peak Repetitive Reverse Surge Current(Tp=2us)		0.5	A
T_J	Maximum operation Junction Temperature Range		-55~150	℃
T_{stg}	Storage Temperature Range		-55~150	℃

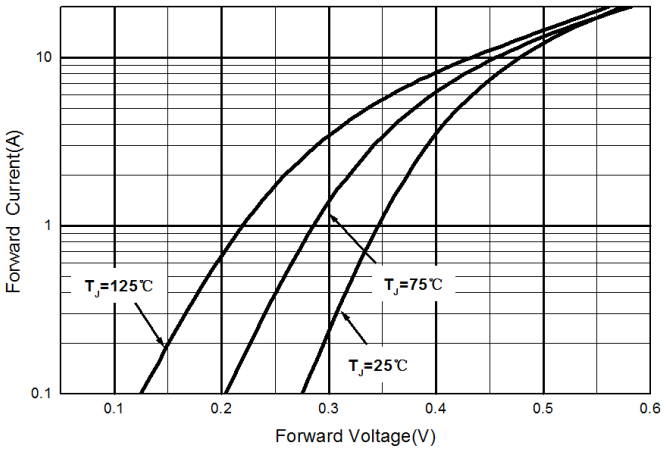
Thermal Resistance

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

Electrical Characterizes @T_A=25℃ unless otherwise specified

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
V_R	Reverse Breakdown Voltage	100			V	I_R=0.5mA
V_F	Forward Voltage Drop			0.6	V	I_F=10A, T_J=25℃
				0.7		I_F=20A, T_J=25℃
				0.65		I_F=20A, T_J=125℃
I_R	Leakage Current			0.5	mA	V_R=100V, T_J=25℃
				50		V_R=100V, T_J=125℃

I-V Curves:



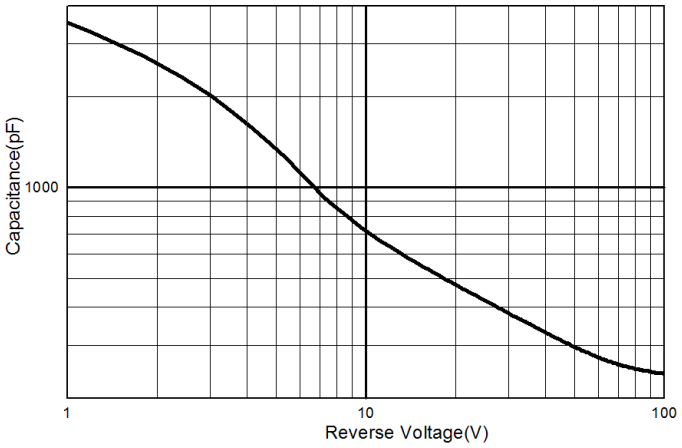


Figure 1：Typical Forward Characteristics **Figure 2：Typical Capacitance Characteristics**

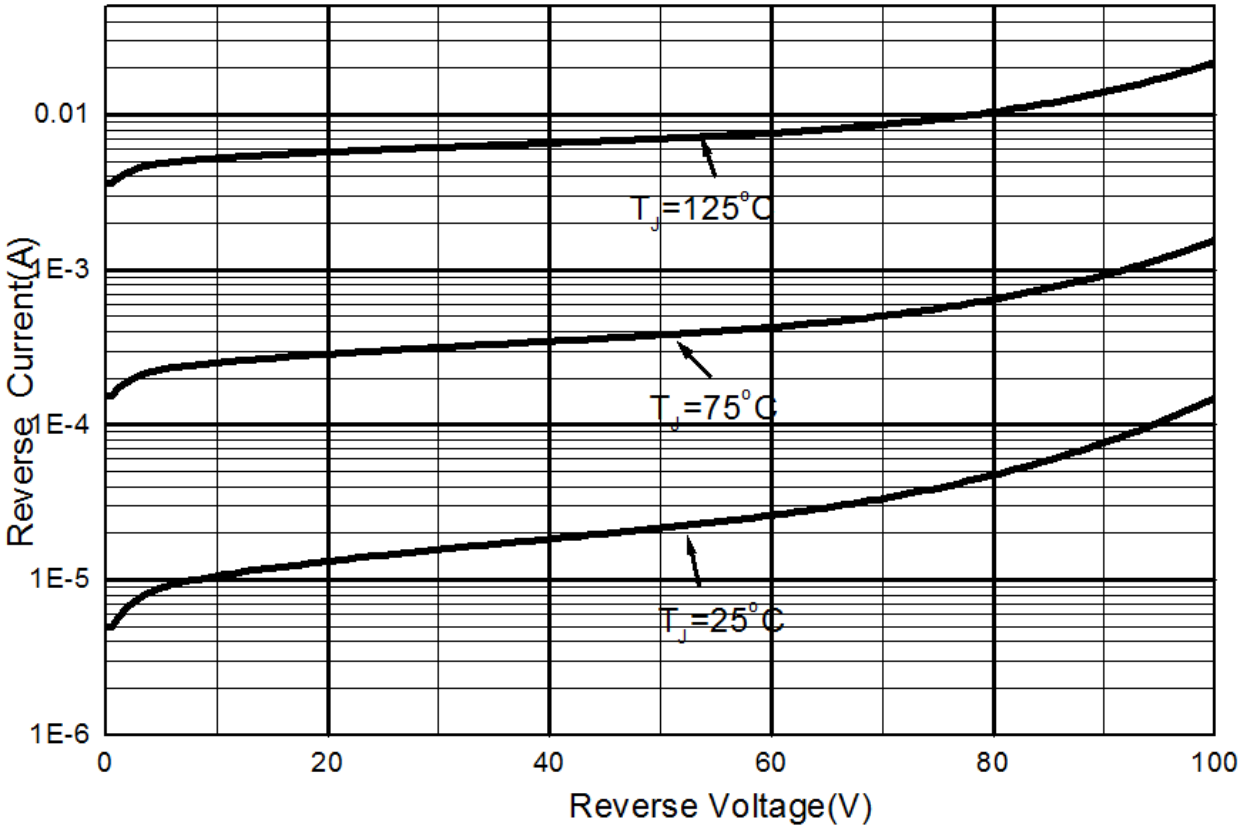
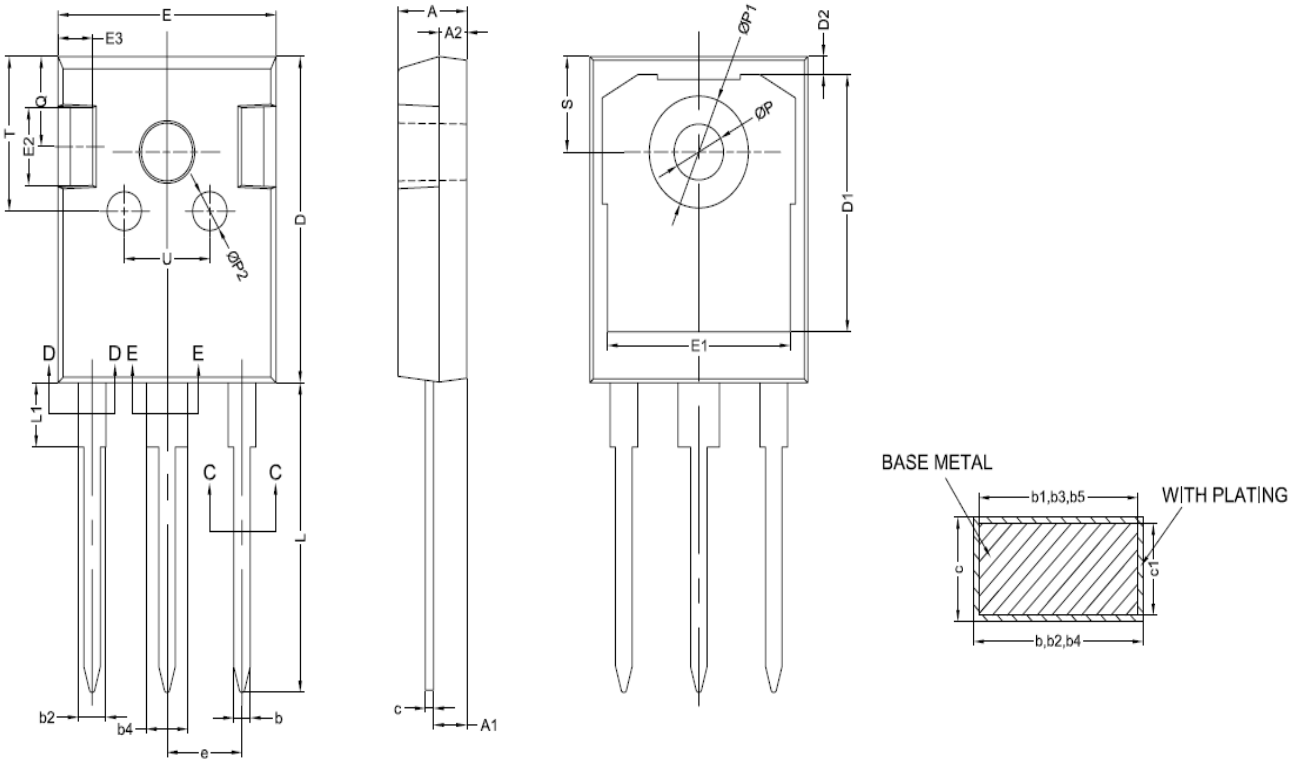


Figure 3：Typical Reverse Characteristics

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: SSTS40100PT

Package (Available)
TO-247
Operating Temperature Range
C : -55 to 150 ºC

Devices per Unit

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

Reliability Test Program

Test Item	Conditions	Duration	Sample Size
High Temperature Reverse Bias(HTRB)	Tj=125℃ to 150℃ @ 80% of Max VDSS/VCES/VR	168 hours 500 hours 1000 hours	3 lots x 77 devices

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