

Main Product Characteristics:

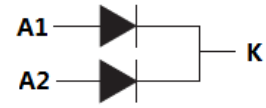
IF	2x15A
VRRM	100V
Tj(max)	150°C
Vf(typ)	0.64V



SSTS30100CT



SSTS30100CTF



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
VRRM	Peak Repetitive Reverse Voltage	100	V
VR(RMS)	RMS Reverse Voltage	70	V
IF(AV)	Average Forward Current	Per diode	15
		Per device	30
IFSM	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)	200	A
IRRM	Peak Repetitive Reverse Surge Current(Tp=2us)	0.5	A
TJ	Maximum operation Junction Temperature Range	-55~150	°C
Tstg	Storage Temperature Range	-55~150	°C

Thermal Resistance

Symbol	Characterizes	Value	Unit
RθJC	Maximum Thermal Resistance Junction To	2.3	°C/W
RθJC	Case(per leg)	5.3	°C/W

Electrical Characterizes @TA=25°C unless otherwise specified

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
VR	Reverse Breakdown Voltage	100			V	IR=0.5mA
VF	Forward Voltage Drop		0.5		V	IF=5A, TJ=25°C
			0.55		V	IF=7.5A, TJ=25°C
			0.61		V	IF=10A, TJ=25°C
			0.7	0.8	V	IF=15A, TJ=25°C
			0.45		V	IF=5A, TJ=125°C
			0.52		V	IF=7.5A, TJ=125°C
			0.57		V	IF=10A, TJ=125°C
IR	Leakage Current			0.1	mA	VR=100V, TJ=25°C
				20		VR=100V, TJ=125°C

I-V Curves:

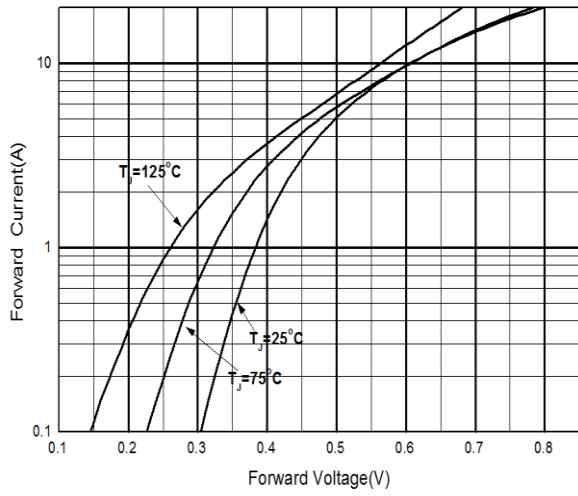


Figure 1: Typical Forward Characteristics

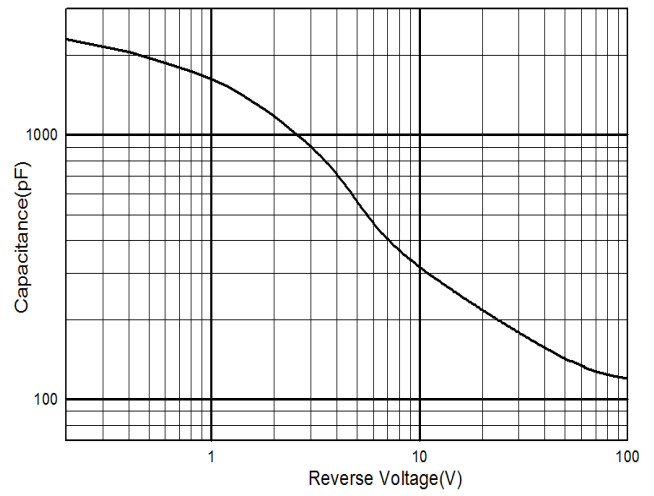


Figure 2: Typical Capacitance Characteristics

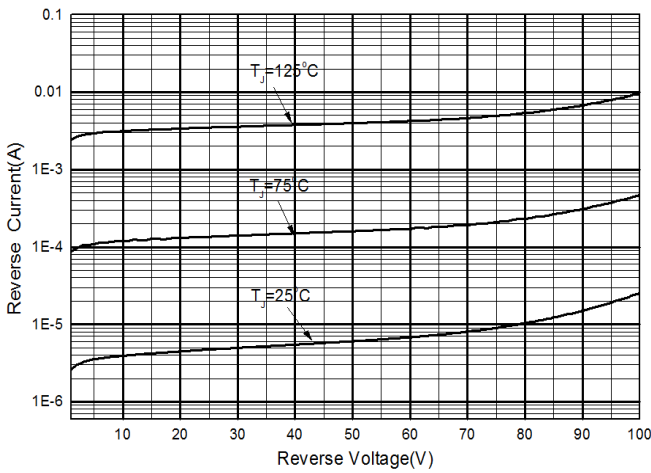


Figure 3: Typical Reverse Characteristics

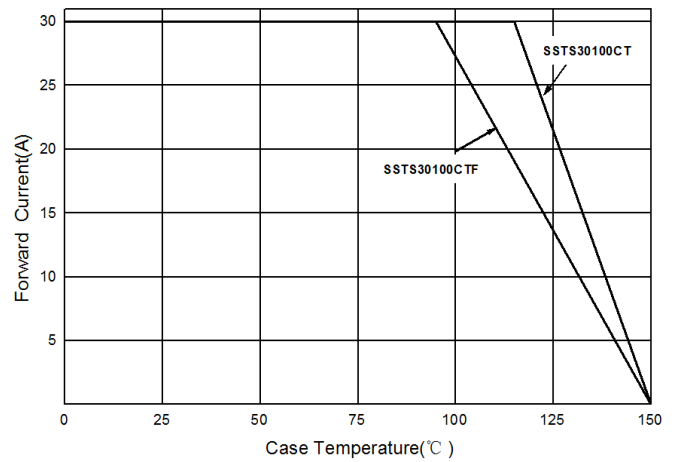
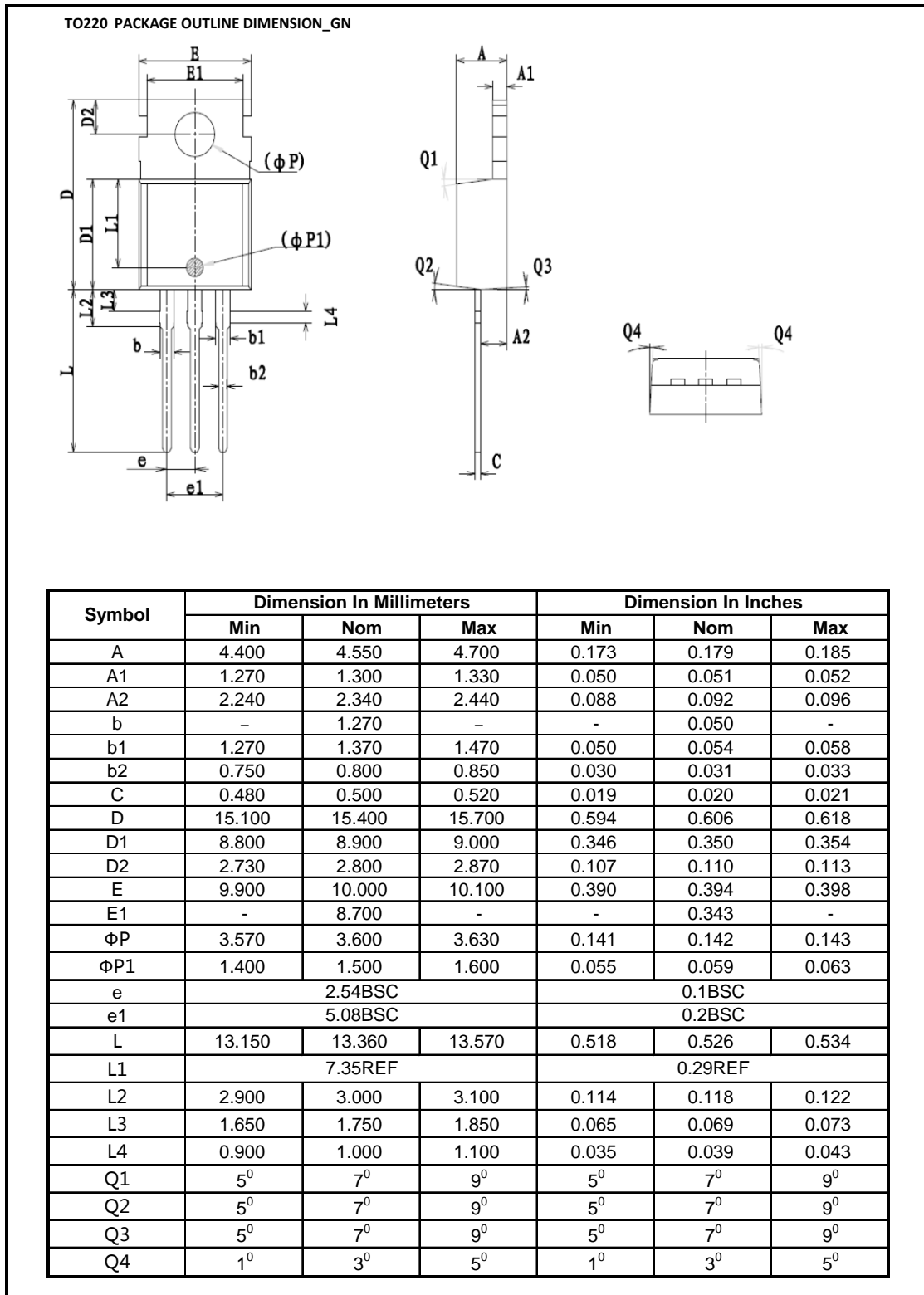
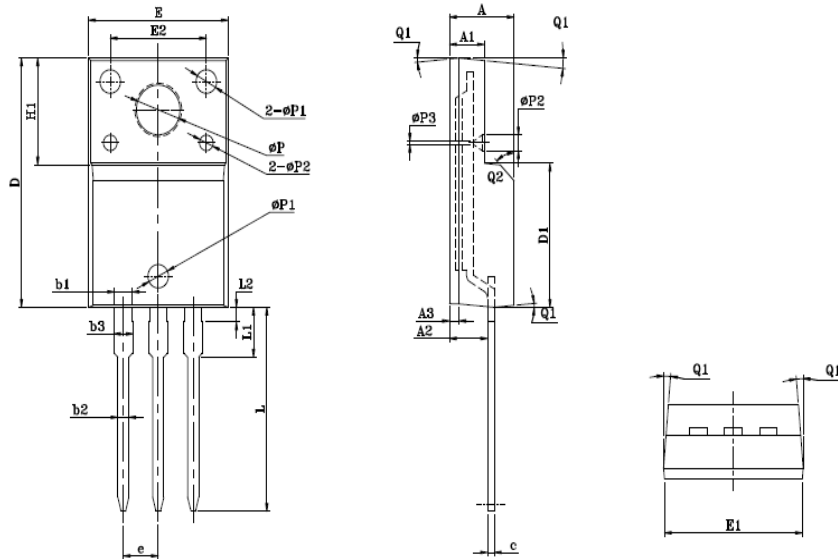


Figure 4: Forward Current Derating Curve

Mechanical Data:


TO220F PACKAGE OUTLINE DIMENSION_GN


Symbol	Dimension In Millimeters			Dimension In Inches		
	Min	Nom	Max	Min	Nom	Max
E	9.960	10.160	10.360	0.392	0.400	0.408
E1	9.840	10.040	10.240	0.387	0.395	0.403
E2	6.800	7.000	7.200	0.268	0.276	0.283
A	4.600	4.700	4.800	0.181	0.185	0.189
A1	2.440	2.540	2.640	0.096	0.100	0.104
A2	2.660	2.760	2.860	0.105	0.109	0.113
A3	0.600	0.700	0.800	0.024	0.028	0.031
c	-	0.500	-	-	0.020	-
D	15.780	15.870	15.980	0.621	0.625	0.629
D1	8.970	9.170	9.370	0.353	0.361	0.369
H1	6.500	6.700	6.800	0.256	0.264	0.268
e	2.54BSC			0.10BSC		
φP	3.080	3.180	3.280	0.121	0.125	0.129
φP1	1.400	1.500	1.600	0.055	0.059	0.063
φP2	0.900	1.000	1.100	0.035	0.039	0.043
φP3	0.100	0.200	0.300	0.004	0.008	0.012
L	12.780	12.980	13.180	0.503	0.511	0.519
L1	2.970	3.170	3.370	0.117	0.125	0.133
L2	0.830	0.930	1.030	0.033	0.037	0.041
Q1	3°	5°	7°	3°	5°	7°
Q2	43°	45°	47°	43°	45°	47°
b1	1.180	1.280	1.380	0.046	0.050	0.054
b2	0.760	0.800	0.840	0.030	0.031	0.033
b3	-	-	1.420	-	-	0.056

Ordering and Marking Information
Device Marking: SSTS30100CT&SSTS30100CTF

Package (Available)
TO-220&TO220F
Operating Temperature Range
C : -55 to 150 °C

Devices per Unit

Package Type	Units/ Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes / Carton Box	Units/ Carton Box
TO220	50	20	1000	6	6000
TO220F	50	20	1000	6	6000

Reliability Test Program

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

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