Technical Data
Data Sheet N1420, Rev. -

Green Products

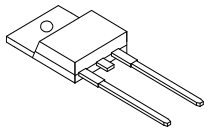
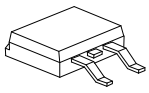
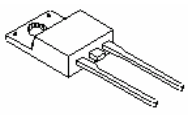
ST2060/STB2060/STF2060
SCHOTTKY RECTIFIER

Applications:

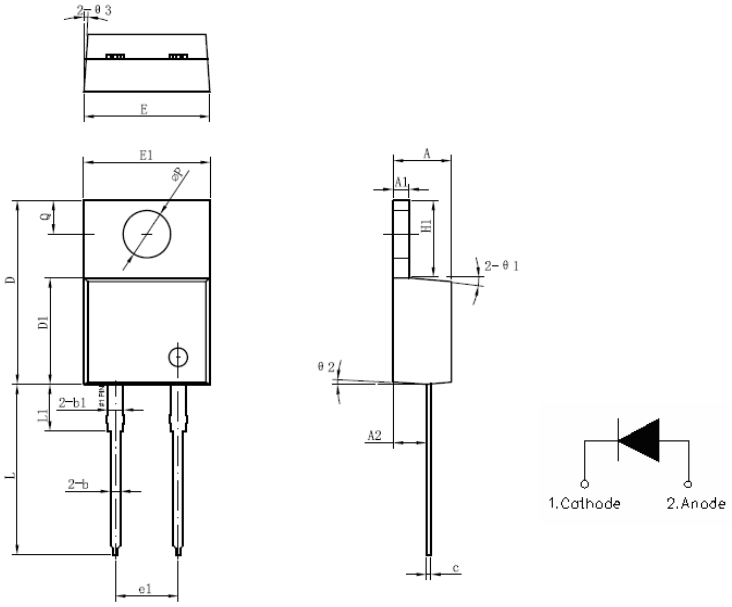
- **Switching power supply**
- **Converters**
- **Free-Wheeling diodes**
- **Reverse battery protection**
- **Center tap configuration**

Features:

- **150°C T_J operation**
- **Center tap configuration**
- **Ultralow forward voltage drop**
- **High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance**
- **High frequency operation**
- **Guard ring for enhanced ruggedness and long term reliability**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**

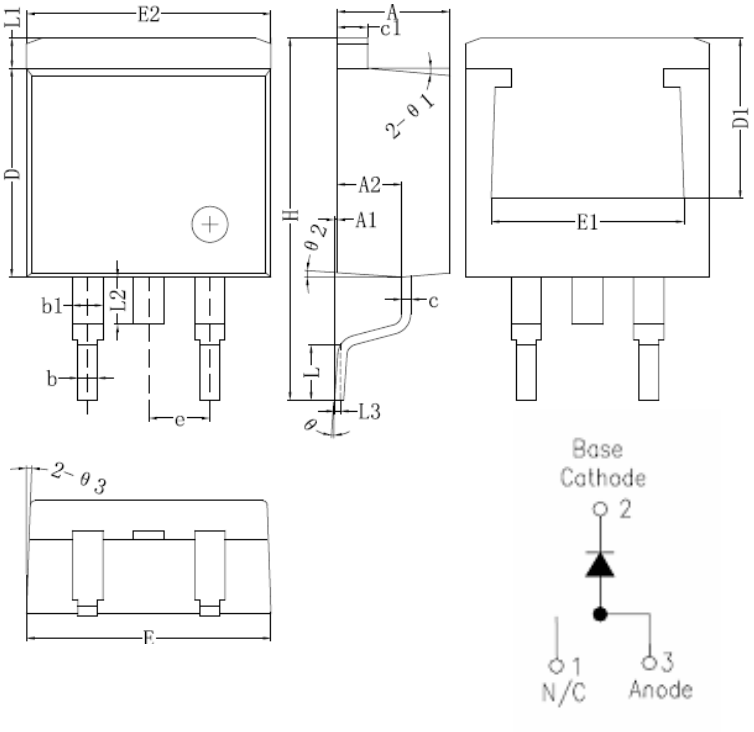
ST2060	STB2060	STF2060
		
TO-220AC	**D^2 PAK**	**ITO-220AC**

Mechanical Dimensions: In Inches / mm



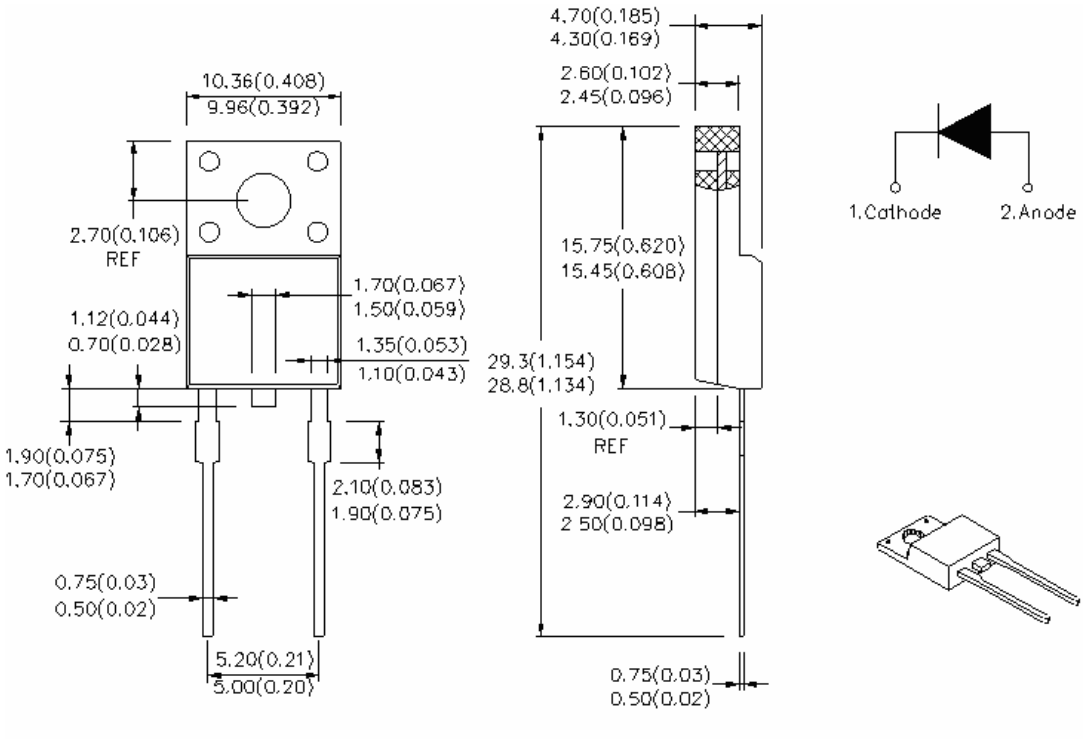
Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	1.17	1.27	1.37
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
D	14.64	14.94	15.24
D1	8.55	8.07	8.85
E	10.01	10.16	10.31
E1	9.98	10.18	10.38
e1		5.08	
H1	6.04	6.24	6.44
L	13.00	13.86	14.08
L1		3.80	
ΦP	3.74	3.84	4.04
Q	2.54	2.74	2.94
Θ1		5°	
Θ2		4°	
Θ3		4°	

TO-220AC



Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	6.40		
E	10.01	10.16	10.31
E1	7.6		
E2	9.98	10.08	10.18
e		2.54	
H	14.6	15.1	15.6
L	2.00	2.30	2.70
L1	1.17	1.27	1.40
L2			2.20
L3		0.25BSC	
e	0	-	8°
e1		5°	
e2		4°	
e3		4°	

D^2PAK

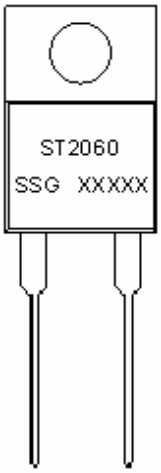

4.70(0.185)
4.30(0.169)
2.60(0.102)
2.45(0.096)
10.36(0.408)
9.96(0.392)
2.70(0.106)
REF
15.75(0.620)
15.45(0.608)
1.70(0.067)
1.50(0.059)
1.12(0.044)
0.70(0.028)
1.35(0.053)
1.10(0.043)
29.3(1.154)
28.8(1.134)
1.30(0.051)
REF
1.90(0.075)
1.70(0.067)
2.10(0.083)
1.90(0.075)
2.90(0.114)
2.50(0.098)
0.75(0.03)
0.50(0.02)
5.20(0.21)
5.00(0.20)
0.75(0.03)
0.50(0.02)
1.Cathode
2.Anode

ITO-220AC

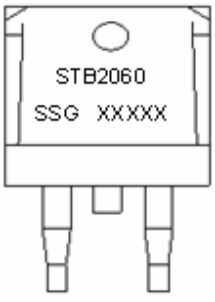
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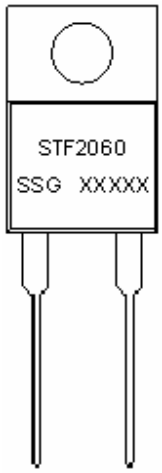
Marking Diagram:



ST2060



STB2060



STF2060

Where XXXXX is YYWWL

ST	= Device Type
B/F	= Package type
20	= Forward Current (20A)
60	= Reverse Voltage (60V)
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

Cautions: Molding resin
Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
ST2060	TO-220AC(Pb-Free)	50pcs / tube
STB2060	D^2 PAK(Pb-Free)	800pcs / reel
STF2060	ITO-220AC(Pb-Free)	50pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	60	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_C =100℃, rectangular wave form	20	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	240	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 20A, Pulse, T_J = 25 °C	0.62	V
	V_{F2}	@ 20A, Pulse, T_J = 125 °C	0.57	V
Reverse Current(per leg)*	I_{R1}	@V_R = rated V_R T_J = 25 °C	6	mA
Reverse Current (per leg) *	I_{R2}	@V_R = rated V_R T_J = 125 °C	190	mA
Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	1000	pF
Voltage Rate of Change	dv/dt	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	ST2060	STB2060	STF2060	Units
Junction Temperature	T_J	-55 to +150			°C
Storage Temperature	T_{stg}	-55 to +150			°C
Maximum Thermal Resistance Junction to Case(per leg)*	$R_{\theta JC}$	1.5	1.5	5.0	°C/W
Approximate Weight	wt	1.8	1.85	1.8	g
Case Style	TO-220AC/ D^2PAK/ITO-220AC				

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Green Products

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