





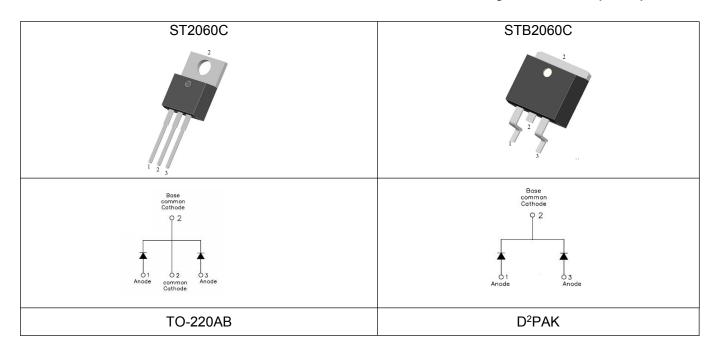
ST2060C/STB2060C SCHOTTKY RECTIFIER

Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

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
- Trench MOS Schottky technology
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	60	V
Average Rectified Forward Current	I _{F (AV)}	50% duty cycle @Tc=105°C, rectangular wave form	10(Per Leg) 20(Per Device)	Α
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I _{FSM}	8.3ms, Half Sine pulse	150	Α

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Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 5A, Pulse, T _J = 25℃ @ 10A, Pulse, T _J = 25℃	0.41 0.50	- 0.65	V
	V _{F2}	@ 5A, Pulse, T _J =125℃ @ 10A, Pulse, T _J = 125℃	0.32 0.45	- 0.59	V
Reverse Current(Per Leg)*	I _{R1}	$@V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	0.02	0.85	mA
	I _{R2}	$@V_R = \text{rated } V_R$ $T_J = 125^{\circ}C$	12	40	mA
Junction Capacitance	Ст	$@V_R = 5V, T_C = 25 °C$ $f_{SIG} = 1MHz$	700	-	pF

^{*} Pulse width < 300 µs, duty cycle < 2%

Thermal-Mechanical Specifications:

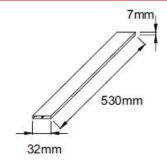
Characteristics	Symbol	ST2060C	STB2060C	Units
Junction Temperature	T_J	-55 to +150		°C
Storage Temperature	T _{stg}	-55 to +150		°C
Typical Thermal Resistance Junction to Case(Per Leg)	$R_{ heta JC}$	3.0	3.2	°C/W

Tube Specification

Device	Package	Weight	Shipping
ST2060C	TO-220AB	2.0	50pcs / tube
STB2060C	D ² PAK	1.85	800pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Tube Specification(TO-220AB)

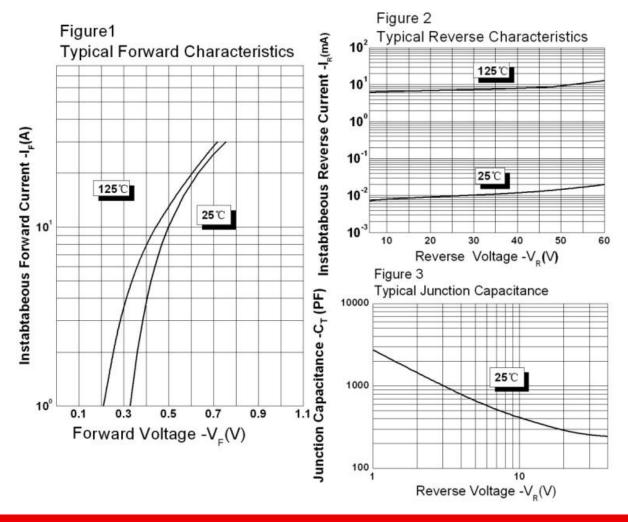




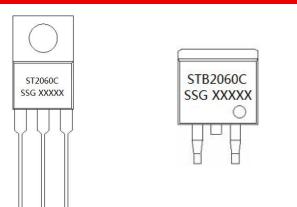




Ratings and Characteristics Curves



Marking Diagram



Where XXXXX is YYWWL

ST = Device Type = Package type 20 = Forward Current (20A) = Reverse Voltage (60V) = Configuration SSG = SSG = Year ww = Week = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

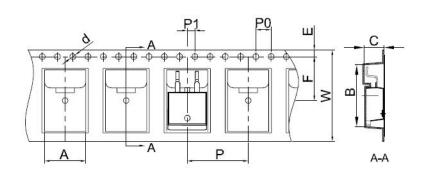
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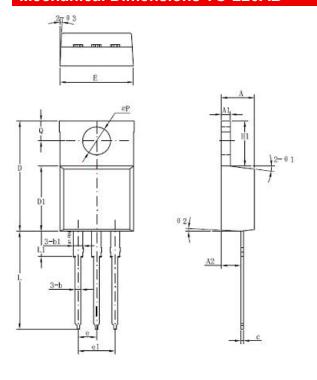


Carrier Tape Specification D2PAK



SYMBOL	Millimeters		
STWIDOL	Min.	Max.	
Α	10.70	10.90	
В	16.03	16.23	
С	5.11	5.31	
d	1.45	1.65	
Е	1.65	1.85	
F	11.40	11.60	
P0	3.90	4.10	
Р	15.90	16.10	
P1	1.90	2.10	
W	23.90	24.30	

Mechanical Dimensions TO-220AB



Symbol	Dimensions in millimeters		
	Min	Typical	Max
Α	4.42	4.57	4.72
A1	1.17	1.27	1.37
A2	2.52	2.69	2.89
b	0.71	0.81	0.96
b1	1.17	1.27	1.37
С	0.31	0.38	0.61
D	14.94	15.24	15.54
D1	8.85	9.00	9.15
E	10.01	10.16	10.31
е		2.54	
e1	4.98	5.06	5.18
H1	6.04	6.24	6.44
L	12.7	13.56	13.80
L1	3.56	3.5	3.96
ФР	3.74	3.84	4.04
Q	2.54	2.74	2.94
Θ1		7°	
Θ2		3°	
Θ3		4°	

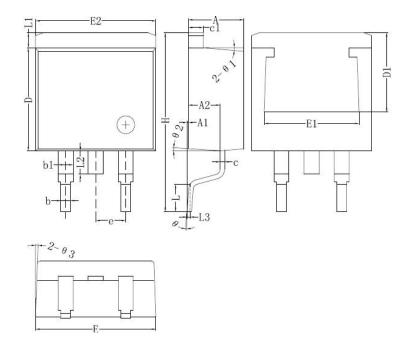
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Mechanical Dimensions D²PAK



Symbol	Dimensions in millimeters			
•	Min.	Typical	Max.	
Α	4.47	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	1.17	1.27	1.37	
С	0.31	0.38	0.61	
c1	1.17	1.27	1.37	
D	8.50	8.70	8.90	
D1	6.40			
E	10.01	10.16	10.31	
E1	7.6			
E2	9.98	10.08	10.31	
е		2.54		
Н	14.6	15.1	15.6	
L	2.00	2.30	2.74	
L1	1.12	1.27	1.42	
L2	1.30		2.20	
L3		0.25BSC		
е	0	-	8°	
e1		5°		
e2		4°		
e3		4°		







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