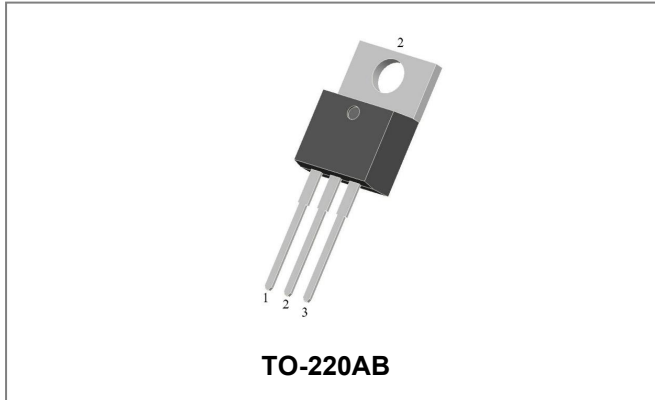


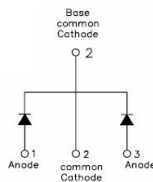
ST20300C SCHOTTKY RECTIFIER



Features

- 175 °C T_J operation
- 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
- Terminals finish: 100% Pure Tin
- 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

Circuit Diagram



Applications

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

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V _{RRM}	-	300	V
Working Peak Reverse Voltage	V _{RWM}			
DC Blocking Voltage	V _R			
Average Rectified Forward Current	I _{F(AV)}	T _c =164°C, In DC	10(Per Leg) 20(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I _{FSM}	8.3ms, Half Sine pulse, T _c =25°C	180	A

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-65 to +175	°C
Storage Temperature	T _{stg}	-	-65 to +175	°C
Typical Thermal Resistance Junction to Case(Per Leg)	R _{θJC}	DC operation	1.2	°C/W
Approximate Weight	wt	-	2	g
Case Style		TO-220AB		

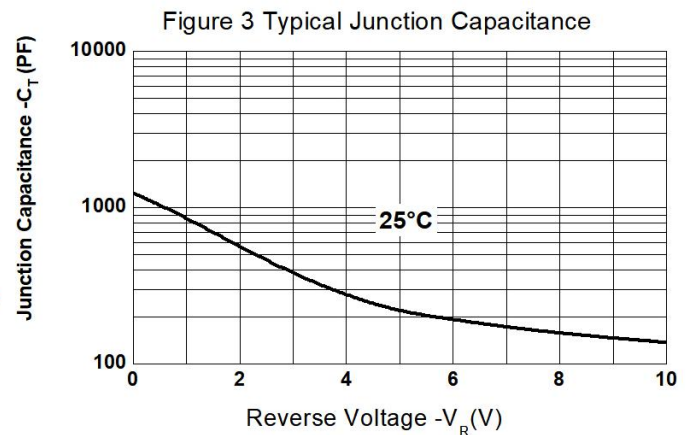
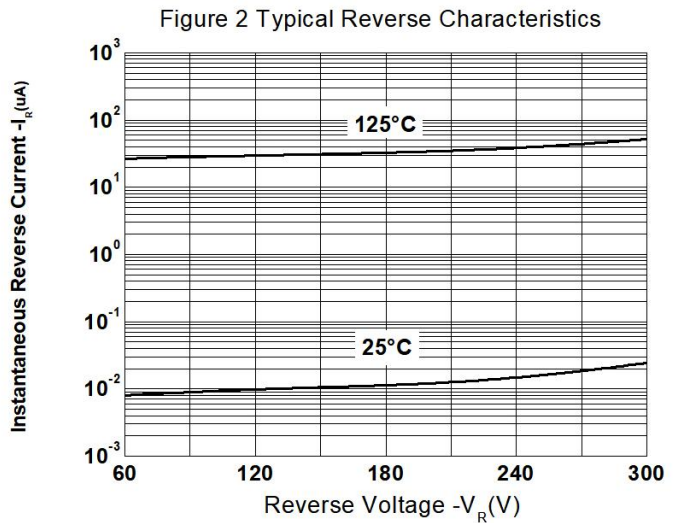
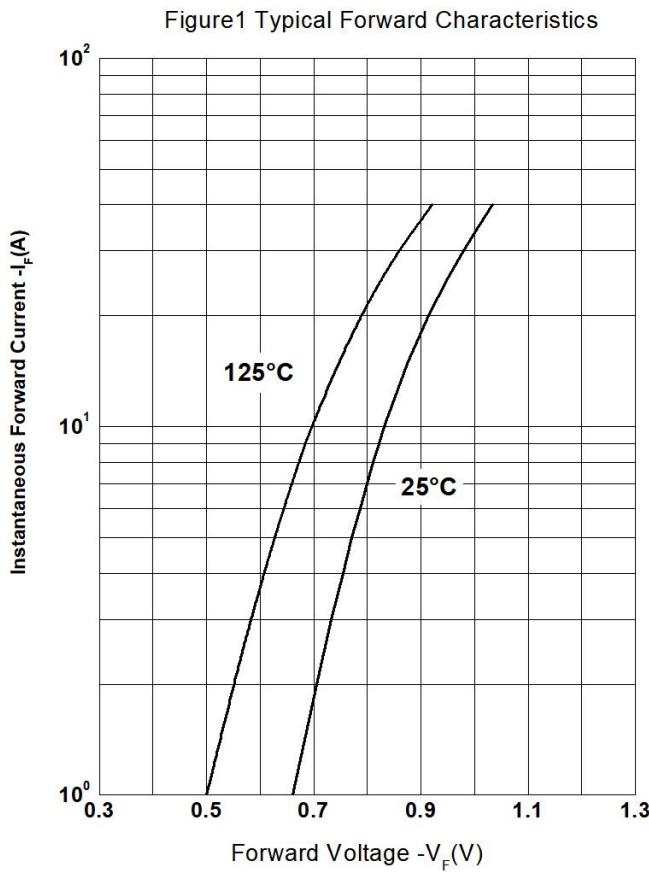
- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

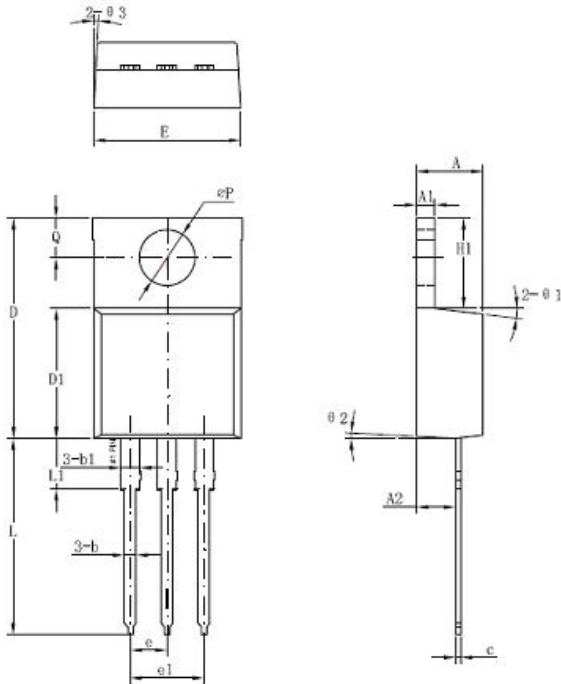
Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (Per Leg)*	V_{F1}	@ 10A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.83	0.92	V
	V_{F2}	@ 10A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.70	0.78	V
Reverse Current(Per Leg)*	I_{R1}	@ $V_R = 300\text{V}$, $T_J = 25\text{ }^\circ\text{C}$	0.02	100	μA
	I_{R2}	@ $V_R = 300\text{V}$, $T_J = 125\text{ }^\circ\text{C}$	0.05	30	mA

* Pulse width < 300 μs , duty cycle < 2%

Ratings and Characteristics Curves



Mechanical Dimensions TO-220AB


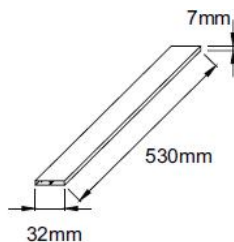
Symbol	Dimensions in millimeters		
	Min	Typical	Max
A	3.56	-	4.83
A1	0.51	-	1.4
A2	2.03	-	2.92
b	0.38	-	1.02
b1	1.14	-	1.78
c	0.31	-	0.61
D	14.22	-	16.51
D1	8.38	-	9.42
E	9.65	-	10.67
e	-	2.54	-
e1	-	5.08	-
H1	5.84	-	6.86
L	12.7	-	14.73
L1	-	-	6.35
ΦP	-	3.56	-
Q	2.54	-	3.43

Marking Diagram


Where XXXXX is YYWWL

- ST = Device Type
- 20 = Forward Current (20A)
- 300 = Reverse Voltage (300V)
- C = Configuration
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

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

Tube Specification

Ordering Information

Device	Package	Shipping
ST20300C	ITO-220AB (Pb-Free)	50 pcs/ tube

DISCLAIMER:

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