


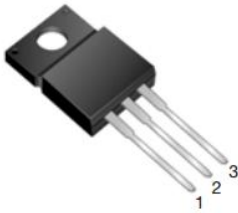
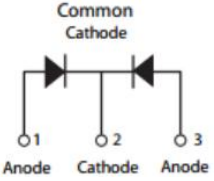
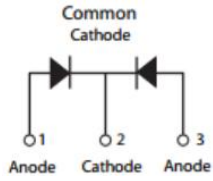
ST20200CE/STF20200CE SCHOTTKY RECTIFIER

Applications

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

Features

- 150 °C T_J operation
- Ultralow forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Trench MOS Schottky technology
- Terminals finish: 100% Pure Tin
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

<p>ST20200CE</p> 	<p>STF20200CE</p> 
 <p>Common Cathode</p> <p>Anode Cathode Anode</p>	 <p>Common Cathode</p> <p>Anode Cathode Anode</p>
<p>TO-220AB</p>	<p>ITO-220AB</p>

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	200	V
Average Rectified Forward Current	$I_F (AV)$	50% duty cycle @T _c =95°C, rectangular wave form	10(Per Leg) 20(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I_{FSM}	8.3ms, Half Sine pulse	120	A



ST20200CE
STF20200CE

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Electrical Characteristics:

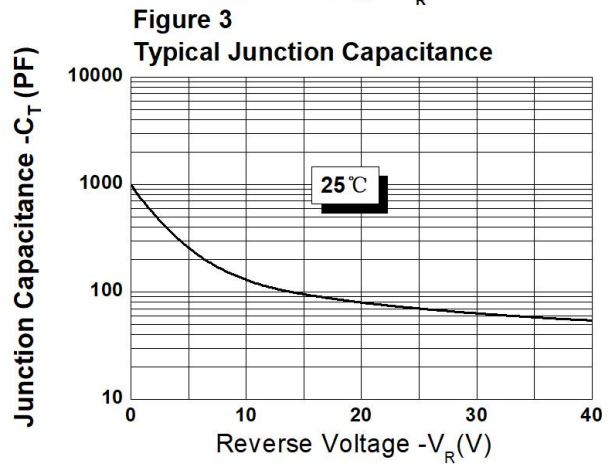
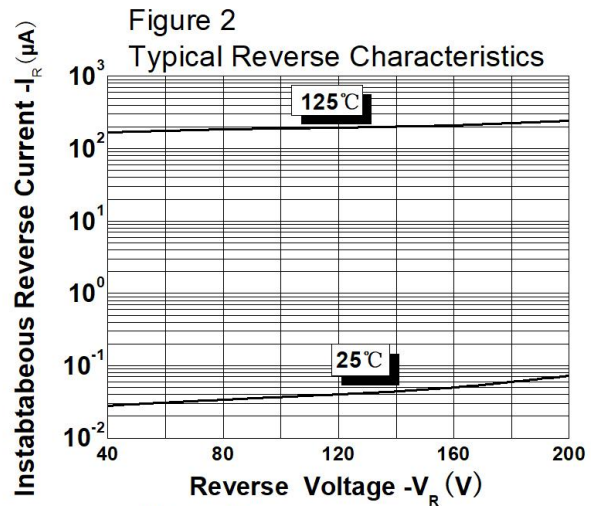
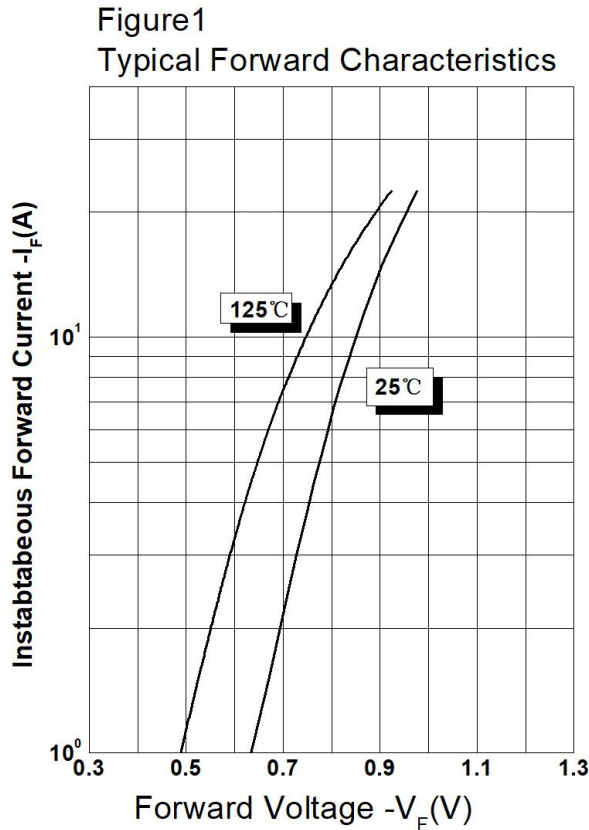
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 5A, Pulse, T _J = 25 °C	0.76	-	V
		@ 10A, Pulse, T _J = 25 °C	0.85	1.0	
	V _{F2}	@ 5A, Pulse, T _J = 125 °C	0.64	-	V
		@ 10A, Pulse, T _J = 125 °C	0.75	0.9	
Reverse Current(Per Leg)*	I _{R1}	@V _R = rated V _R T _J = 25 °C	0.07	150	uA
	I _{R2}	@V _R = rated V _R T _J = 125 °C	0.003	15	mA
Junction Capacitance(Per Leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	233	-	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	ST20200CE	STF20200CE	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 _{θJC}	2.2	5.5	°C/W

Ratings and Characteristics Curves

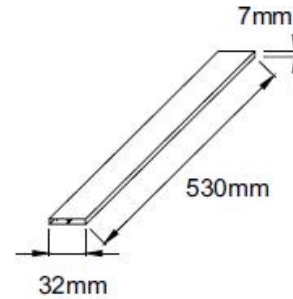


Tube Specification

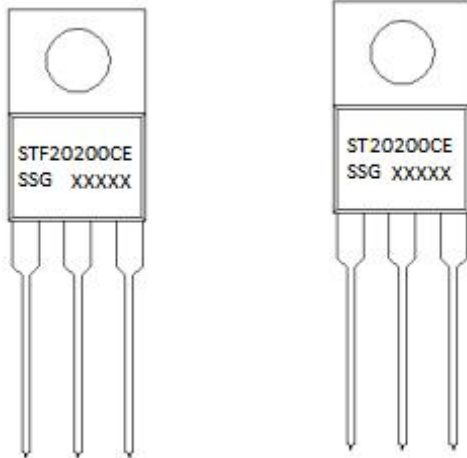
Device	Package	Weight	Shipping
ST20200CE	TO-220AB	2.0	50pcs / tube
STF20200CE	ITO-220AB	2.0	50pcs / tube

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

Tube Specification



Marking Diagram

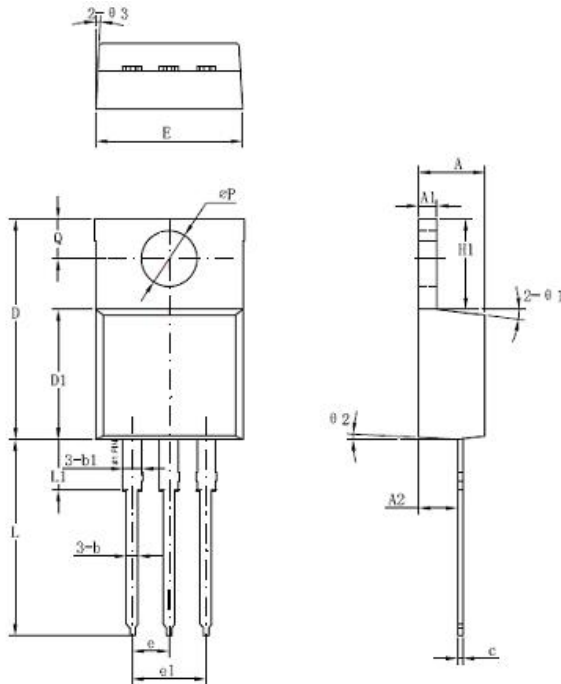


Where XXXXX is YYWWL

- ST = Device Type
- F = Package type
- 20 = Forward Current (20A)
- 200 = Reverse Voltage (200V)
- CE = Configuration
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

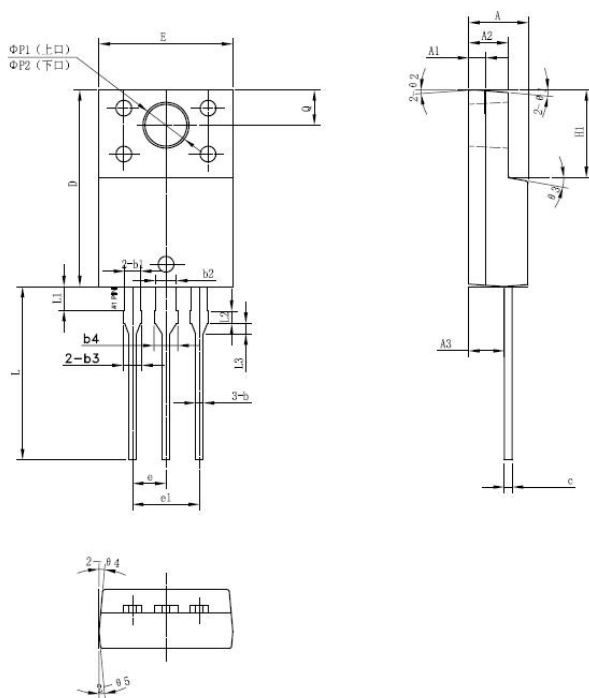
Cautions: Molding resin
Epoxy resin UL:94V-0

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

Mechanical Dimensions ITO-220AB



Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.30	4.50	4.70
A1	1.10	1.30	1.50
A2	2.80	3.00	3.20
A3	2.50	2.70	2.90
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
b2	1.50	1.60	1.75
b3	1.20	1.30	1.45
b4	1.60	1.70	1.85
c	0.50	0.60	0.75
D	14.80	15.00	15.20
E	9.96	10.16	10.36
e	-	2.55	-
e1	-	5.10	-
H1	6.50	6.70	6.90
L	12.70	13.20	13.70
L1	1.60	1.80	2.00
L2	0.80	1.00	1.20
L3	0.60	0.80	1.00
ΦP1(上口)	3.30	3.50	3.70
ΦP2(下口)	2.99	3.19	3.39
Q	2.50	2.70	2.90
Θ1	-	5°	-
Θ2	-	4°	-
Θ3	-	10°	-
Θ4	-	5°	-
Θ5	-	5°	-



ST20200CE
STF20200CE

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