SZCJ Shenzhen Changji Semiconductor Co., LTD.

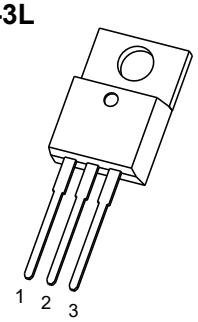
TO-220-3L Plastic-Encapsulate Diode

SBD30200TCTB SCHOTTKY BARRIER RECTIFIER

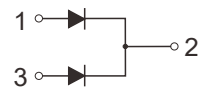
MAIN CHARACTERISTICS

I_O	**30（2×15）A**
V_{RRM}	**200 V**
T_j	**150** ℃
$V_{F(typ)}$	**0.75V (@Tj=125℃)**

TO-220-3L



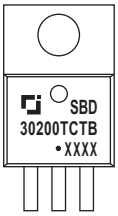
1. ANODE
2. CATHODE
3. ANODE



FEATURES

- Low Power Loss,High Efficiency
- Guard Ring Die Construction for Transient Protection
- High Current Capability and Low Forward Voltage Drop

MARKING



SBD30200TCTB= Device code
Solid dot = Green molding compound device
if none, the normal device
XXXX= Code

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	200	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	140	V
I_O	Average rectified output current	30	A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)	190	A
$R_{\Theta JC}$	Thermal resistance from junction to case	1.4	℃/W
$R_{\Theta JA}$	Thermal resistance from junction to ambient	64	℃/W
T_j	Junction temperature	150	℃
T_{stg}	Storage temperature	-55~+150	℃

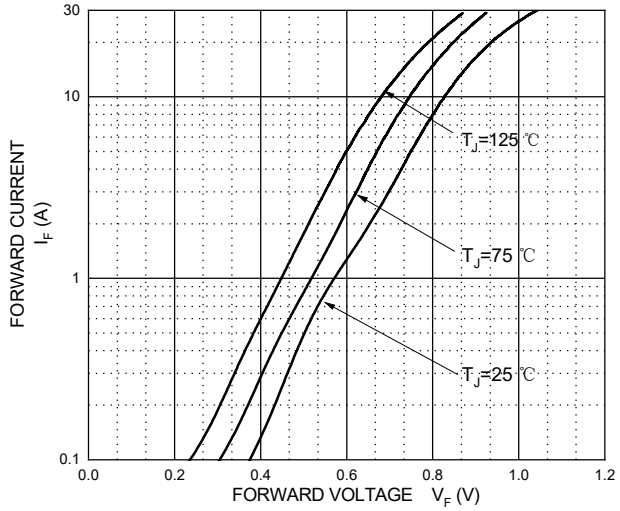
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=1mA		200			V
Reverse current	I_R	V_R=150V	Tj =25℃		0.60	10	uA
			Tj =125℃		0.65		mA
Forward voltage	V_F	I_F=10A	Tj =25℃		0.80		V
			Tj =125℃		0.65		V
		I_F=15A	Tj =25℃		0.88	0.92	V
			Tj =125℃		0.75		V

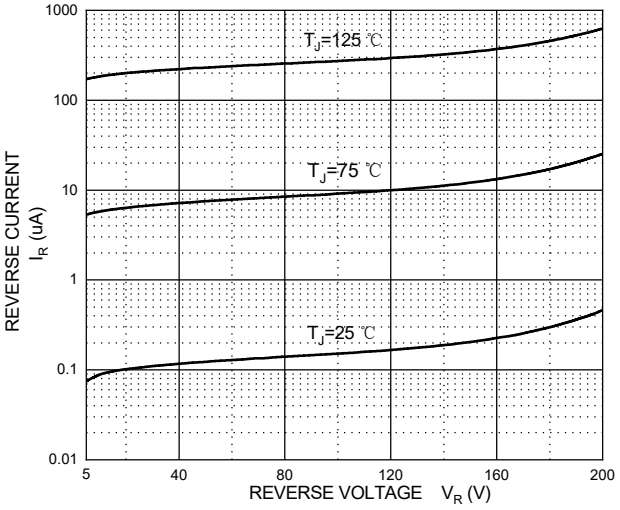
*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

Typical Characteristics

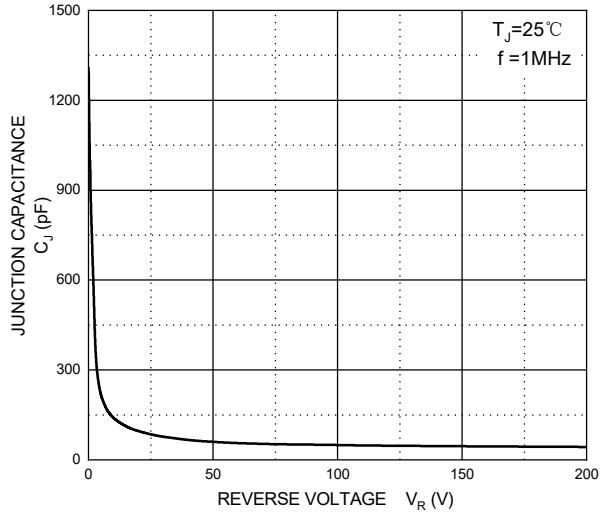
Forward Characteristics



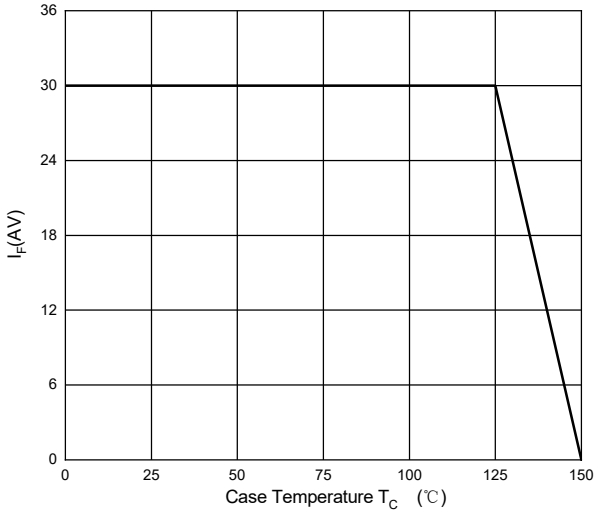
Reverse Characteristics



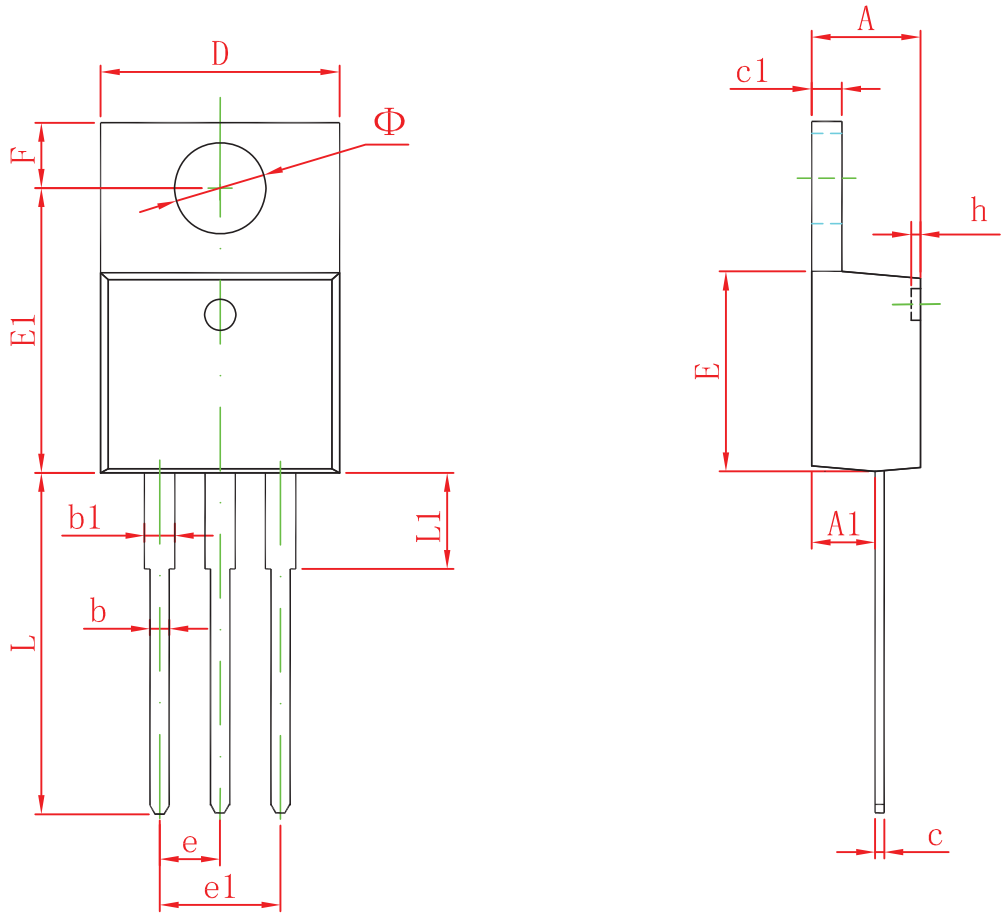
Capacitance Characteristics Per Diode



FORWARD CURRENT DERATING CURVE



TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.450	4.750	0.175	0.187
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.300	0.500	0.012	0.020
c1	1.170	1.370	0.046	0.054
D	9.830	10.330	0.387	0.407
E	8.500	8.900	0.335	0.350
E1	12.050	12.650	0.474	0.498
e	2.540 TYP		0.100 TYP	
e1	4.900	5.200	0.192	0.205
F	2.540	2.940	0.100	0.116
h	0.100 TYP		0.004 TYP	
L	13.300	13.800	0.523	0.543
L1	3.540	3.940	0.139	0.155
Φ	3.735	3.935	0.147	0.155