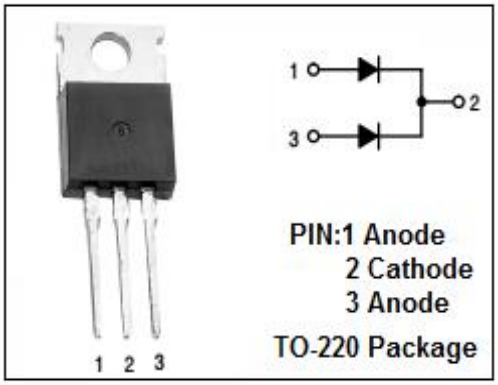
Schottky Barrier Rectifier — SBR60A300CT

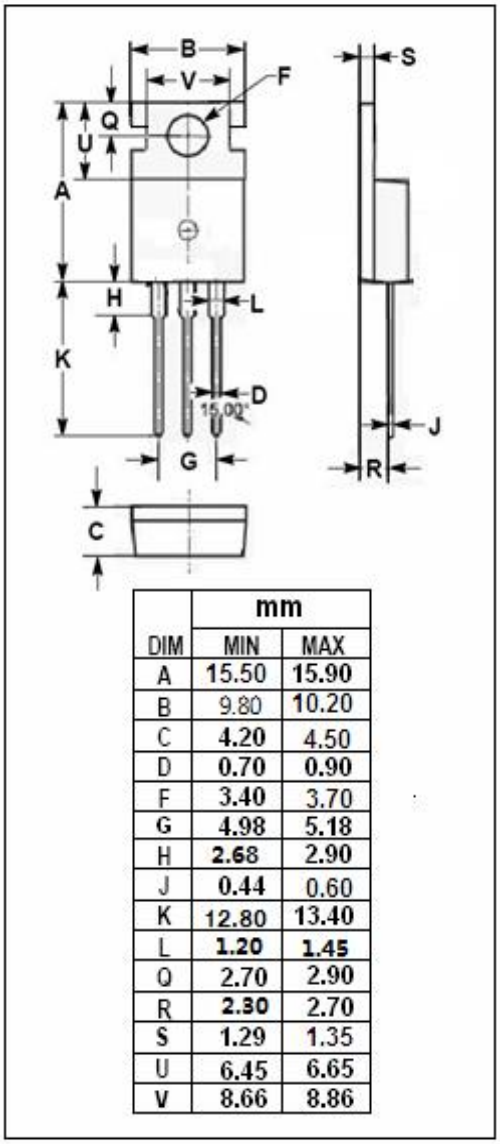


FEATURES

- With TO-220 packaging
- Soft, fast switching capability
- Low forward voltage drop
- Low leakage current
- High frequency operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak repetitive reverse voltage RMS voltage DC blocking voltage		300	V
$I_{F(AV)}$	Average rectified forward current	Per Leg Total	30 60	A
I_{FSM}	Nonrepetitive peak surge current (8.3ms single half sine-wave superimposed on rated load conditions)		235	A
T_J	Junction temperature		-65~175	℃
T_{stg}	Storage temperature range		-65~175	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance,junction to case	1.2	℃/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300μs,Duty Cycle≤1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum instantaneous forward voltage	I_F= 30A; Tc= 25℃ I_F= 30A; Tc=125℃	0.94 0.82	V
I_R	Maximum instantaneous reverse current (Short duration pulse test used to minimize self-heating effect)	V_R= rated V_{RRM}; Tc= 25℃ V_R= rated V_{RRM}; Tc= 125℃	0.1 10	mA
trr	Reverse recovery time	I_F=0.5A;I_R=1A;I_{RR}=0.25A	50	ns