

# Schottky Barrier Rectifier

# SBR60A300CT

## FEATURES

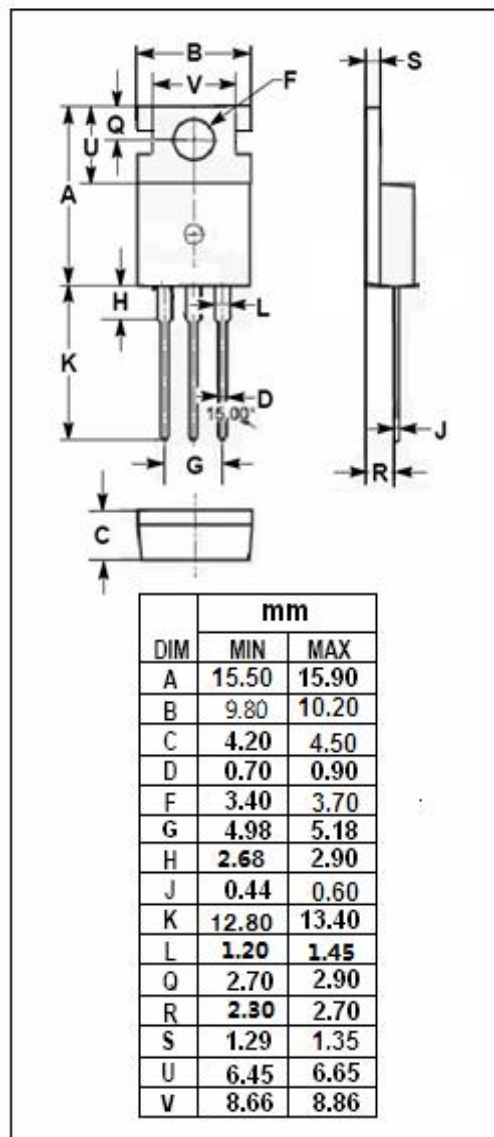
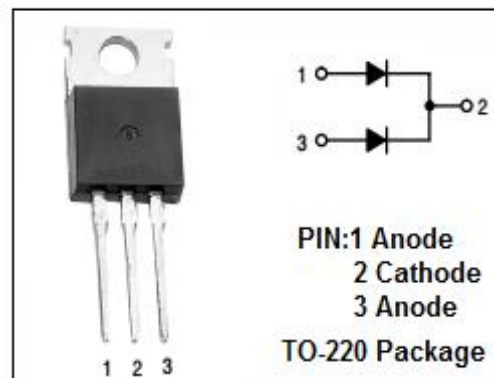
- With TO-220 packaging
- Soft, fast switching capability
- Low forward voltage drop
- Low leakage current
- High frequency operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

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

## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>R</sub> RM V <sub>R</sub> MS V <sub>R</sub>	Peak repetitive reverse voltage RMS voltage DC blocking voltage	300	V
I <sub>F</sub> (AV)	Average rectified forward current	Per Leg 30 60	A
I <sub>FSM</sub>	Nonrepetitive peak surge current ( 8.3ms single half sine-wave superimposed on rated load conditions )	235	A
T <sub>J</sub>	Junction temperature	-65~175	°C
T <sub>stg</sub>	Storage temperature range	-65~175	°C



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**THERMAL CHARACTERISTICS**

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

**ELECTRICAL CHARACTERISTICS** (Pulse Test: Pulse Width=300  $\mu$  s, Duty Cycle  $\leq$  1%)

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

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