

# Schottky Barrier Rectifier

## SBR20U100CT

### FEATURES

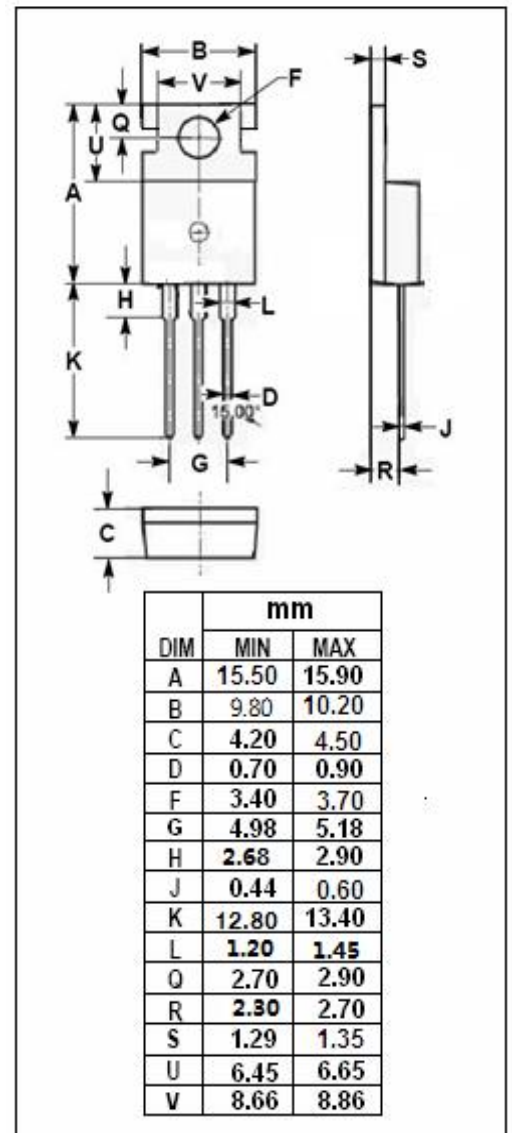
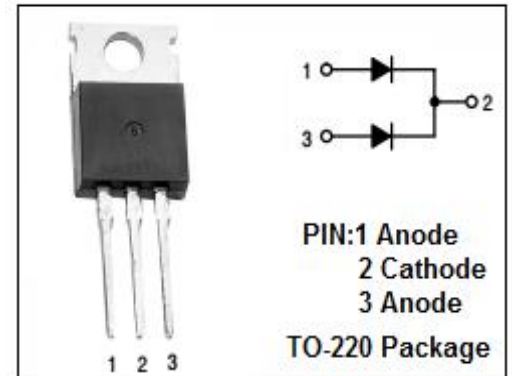
- With TO-220 packaging
- Soft, fast switching capability
- 150°C operating junction temperature
- Ultralow forward voltage drop
- High frequency operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### 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>RRM</sub> V <sub>RMS</sub> V <sub>R</sub>	Peak repetitive reverse voltage RMS voltage DC blocking voltage	100	V
I <sub>F(AV)</sub>	Average rectified forward current @T <sub>c</sub> = 140°C	20	A
I <sub>FSM</sub>	Nonrepetitive peak surge current ( 8.3ms single half sine-wave superimposed on rated load conditions )	200	A
T <sub>J</sub>	Junction temperature	-65~175	°C
T <sub>stg</sub>	Storage temperature range	-65~175	°C



**Schottky Barrier Rectifier****SBR20U100CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance, junction to case	2.0	°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	$I_F = 10A; T_c = 25^\circ C$ $I_F = 10A; T_c = 125^\circ C$ $I_F = 20A; T_c = 25^\circ C$	0.70 0.63 0.82	V
$I_R$	Maximum instantaneous reverse current ( Short duration pulse test used to minimize self-heating effect )	$V_R = \text{rated } V_{RRM}; T_c = 25^\circ C$ $V_R = \text{rated } V_{RRM}; T_c = 125^\circ C$	0.5 25	mA

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