

Schottky Barrier Rectifier

SBR20A45CT

FEATURES

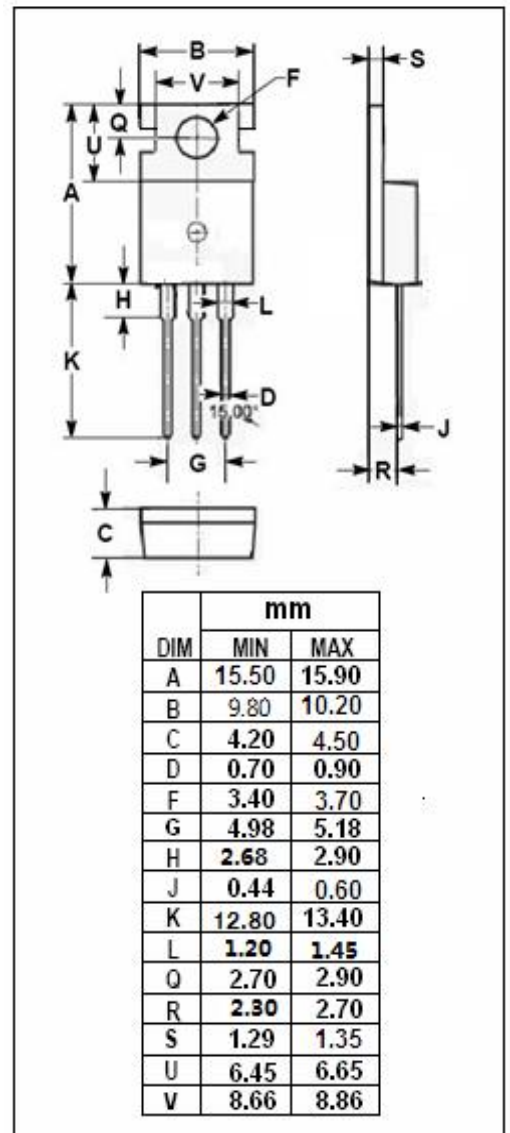
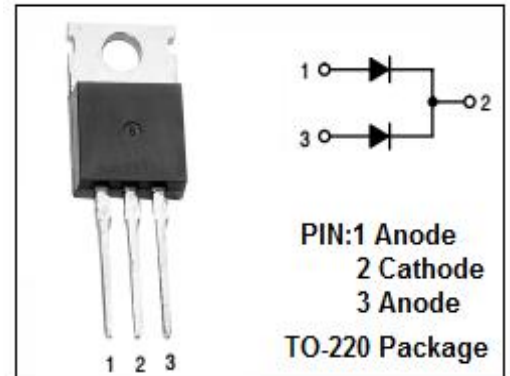
- With TO-220 packaging
- Soft, fast switching capability
- 150°C operating junction temperature
- Ultralow forward voltage drop
- High frequency operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak repetitive reverse voltage RMS voltage DC blocking voltage	45	V
I _{F(AV)}	Average rectified forward current @T _c = 110°C	20	A
I _{FSM}	Nonrepetitive peak surge current (8.3ms single half sine-wave superimposed on rated load conditions)	180	A
T _J	Junction temperature	-65~150	°C
T _{stg}	Storage temperature range	-65~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance, junction to case	2.0	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum instantaneous forward voltage	$I_F = 10A; T_C = 25^{\circ}C$ $I_F = 10A; T_C = 125^{\circ}C$ $I_F = 20A; T_C = 25^{\circ}C$	0.50 0.47 0.60	V
I_R	Maximum instantaneous reverse current (Short duration pulse test used to minimize self-heating effect)	$V_R = \text{rated } V_{RRM}; T_C = 25^{\circ}C$ $V_R = \text{rated } V_{RRM}; T_C = 125^{\circ}C$	0.5 100	mA

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