

SBR20100CT SBR20100CTF SBR20100CTI SBR20100CTB

Super Barrier Rectifier ™

Using state-of-the-art SBR IC process technology, the following features are made possible in a single device:

Major ratings and characteristics

Characteristics	Values	Units
I _{F(AV)} Rectangular Waveform	20	Α
V_{RRM}	100	V
V _F @10A, Tj=125 ^O C	0.67	V, typ
Tj (operating/storage)	-65 to 175	°C

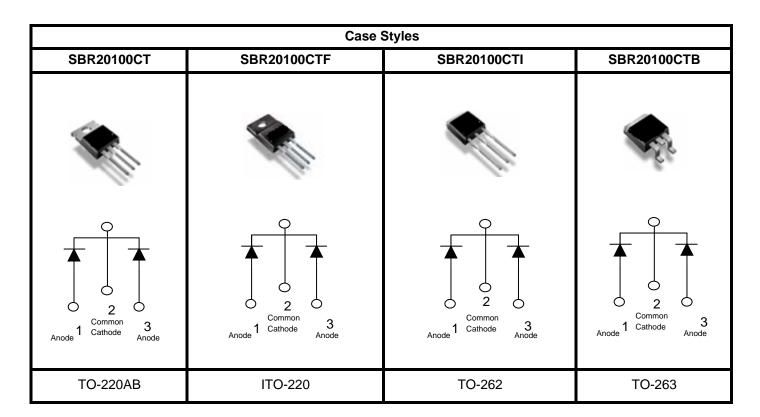
Device optimized for high temperature Power Supply applications

ELECTRICAL:

- * Low Forward Voltage Drop
- * Reliable High Temperature Operation
- * Super Barrier Design
- * Softest, Fast Switching Capability
- * 175°C Operating Junction Temperature

MECHANICAL:

* Molded Plastic TO-220AB, TO-262, TO-263, and ITO-220 packages





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Max

100

10

10,000

2

4

-65 to +175

uΑ

mΑ

V/uS

°C/W

οС

Maximum Ratings and Electrical Characteristics (at 25°C unless otherwise specified) SYMBOL **UNITS** DC Blocking Voltage V_{RM} Working Peak Reverse Voltage 100 Volts V_{RWM} Peak Repetitive Reverse Voltage V_{RRM} Average Rectified Forward Current (Rated V_R-20Khz Square Wave) - 50% duty I_{o} 20 Amps cycle Peak Forward Surge Current - 1/2 60hz 120 I_{FSM} **Amps** Peak Repetitive Reverse Surge Current 2 I_{RRM} Amps (2uS-1Khz) Instantaneous Forward Voltage (per leg) Тур Max $I_{\rm F} = 10A; T_{\rm I} = 25^{\circ}C$ V_{F} 0.82 Volts $I_F = 10A$; $T_J = 125^{\circ}C$ 0.75

 I_R^*

dv/dt

 $R\theta_{JC}$

 T_J

Тур

Maximum Rate of Voltage Change

Rated V_{RM}

 $T_{I} = 25^{\circ}C$

 $T_{J} = 125^{\circ}C$

(at Rated V_R)

Package = ITO-220

Maximum Instantaneous Reverse Current at

Maximum Thermal Resistance JC (per leg) Package = TO-220AB, TO-262, & TO-263

Operating and Storage Junction Temperature

^{*} Pulse width < 300 uS, Duty cycle < 2%



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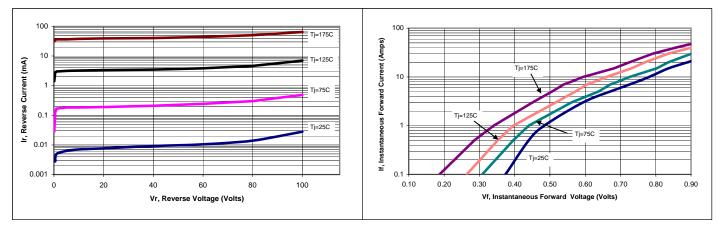


Figure 1: Typical Reverse Current

Figure 2: Typical Forward Voltage

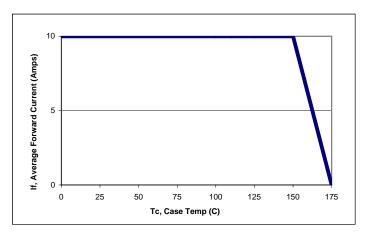


Figure 3: Current Derating, Case

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1 Lagoon Drive, Suite 410, Redwood City, CA 94065, USA Ph: 650 508 8896 FAX: 650 508 8865 Homepage: www.apdsemi.com email: info@apdsemi.com