

**40A SBR<sup>®</sup>  
Super Barrier Rectifier**
**NEW PRODUCT**
**Features**

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Super Barrier Design
- Soft, Fast Switching Capability
- **Lead Free Finish, RoHS Compliant (Note 2)**

**Mechanical Data**

- Package: TO-220AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 **(e3)**
- Marking: See Page 2
- Ordering Information: See Page 2

**Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified**

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	150	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>RM</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	106	V
Average Rectified Output Current @T <sub>C</sub> = 25°C	I <sub>O</sub>	40	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	300	A
Peak Repetitive Reverse Surge Current (2µS-1KHz)	I <sub>RRM</sub>	3	A
Maximum Thermal Resistance (per leg)	R <sub>θJC</sub>	2	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	°C

**Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified**

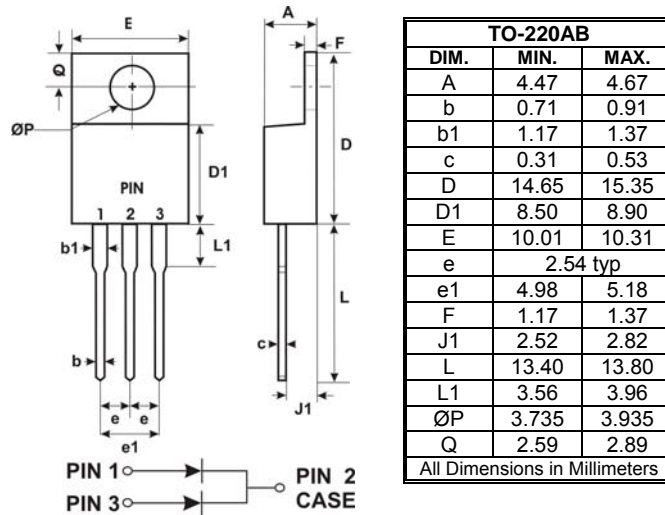
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V <sub>(BR)R</sub>	150	-	-	V	I <sub>R</sub> = 0.5 mA
Forward Voltage Drop	V <sub>F</sub>	-	- 0.73	0.80 0.76	V	I <sub>F</sub> = 20A, T <sub>J</sub> = 25°C I <sub>F</sub> = 20A, T <sub>J</sub> = 125°C
Leakage Current (Note 1)	I <sub>R</sub>	-	-	0.5 25	mA	V <sub>R</sub> = 150V, T <sub>J</sub> = 25 °C V <sub>R</sub> = 150V, T <sub>J</sub> = 125 °C

**Notes:**

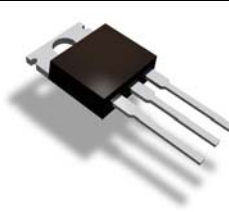
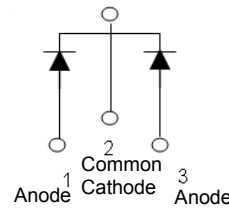
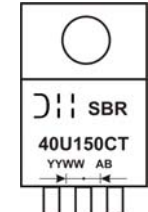
1. Short duration pulse test used to minimize self-heating effect.
2. RoHS revision 13.2.2003. High temperature solder exemption applied, see *EU Directive Annex Note 7*.

**Package Outline Drawing**

**TO-220AB**



**Marking, Polarity, Weight & Ordering Information**

	Case Style	Polarity	Marking	Weight
SBR40U150CT	 TO-220AB			2.1g

Ordering Information	Date Code	Other Marking Information
SBR40U150CT 50 pieces/tube	YY = Last two digits of year, ex = 06 = 2006 WW = Week (01-52)	A = Foundry Code B = Assembly Code

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