

**SCHOTTKY BARRIER RECTIFIERS**

REVERSE VOLTAGE - 30 to 45 Volts  
FORWARD CURRENT - 20 Amperes

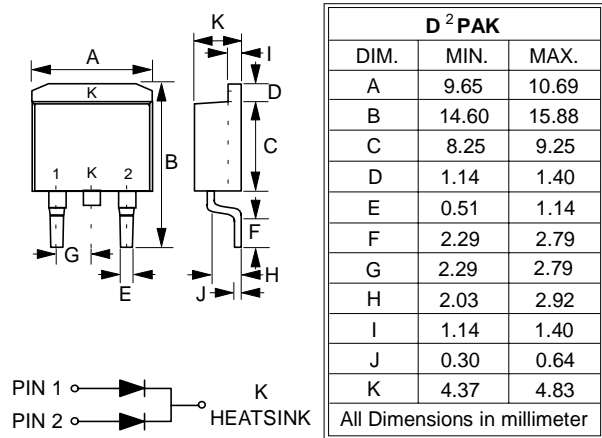
**FEATURES**

- Metal of silicon rectifier, majority carrier conductor
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free whelling, and polarity protection applications

**MECHANICAL DATA**

- Case : D PAK molded plastic
- Polarity :  $\Delta$ s marked on the body
- Weight : 0.06 ounces, 1.7 grams

**D<sup>2</sup>PAK**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SBG2030CT	SBG2035CT	SBG2040CT	SBG2045CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	35	40	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	24.5	28	31.5	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	35	40	45	V
Maximum Average Forward Rectified Current (See Fig.1) @T <sub>C</sub> =105°C	I <sub>(AV)</sub>	20				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I <sub>FSM</sub>	225				A
Maximum Forward Voltage at 10A DC (Note 1)	V <sub>F</sub>	0.55				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	1.0 50				mA
Typical Junction Capacitance per element (Note 2)	C <sub>J</sub>	350				pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	2.0				°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125				°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150				°C

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Typical Thermal Resistance Junction to Case.

