

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 30 to 45 Volts
FORWARD CURRENT - 10 Amperes

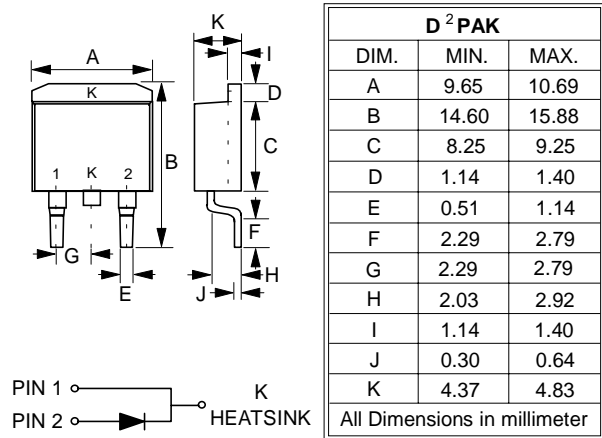
FEATURES

- 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 : D²PAK molded plastic
- Polarity : As marked on the body
- Weight : 0.06 ounces, 1.7 grams

D²PAK



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	SBG1030	SBG1035	SBG1040	SBG1045	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	V
Maximum RMS Voltage	VRMS	21	24.5	28	31.5	V
Maximum DC Blocking Voltage	VDC	30	35	40	45	V
Maximum Average Forward Rectified Current (See Fig.1) @Tc=95°C	I(AV)	10				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	IFSM	250				A
Maximum Forward Voltage at 5A DC (Note 1)	VF	0.60				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @Tj=25°C @Tj=100°C	IR	1.0 50				mA
Typical Junction Capacitance (Note 2)	CJ	280				pF
Typical Thermal Resistance (Note 3)	RθJC	3.0				°C/W
Operating Temperature Range	TJ	-55 to +125				°C
Storage Temperature Range	TSTG	-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. Thermal Resistance Junction to Case.

FIG.1 - FORWARD CURRENT DERATING CURVE

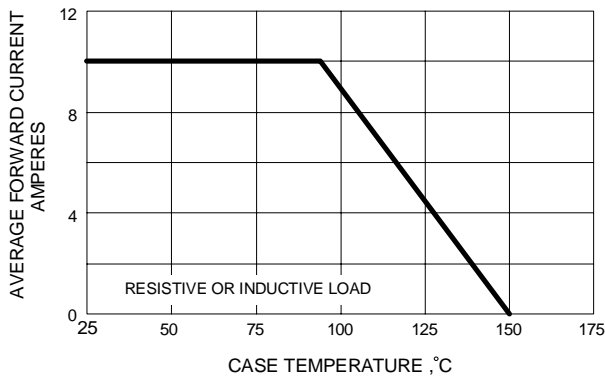


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

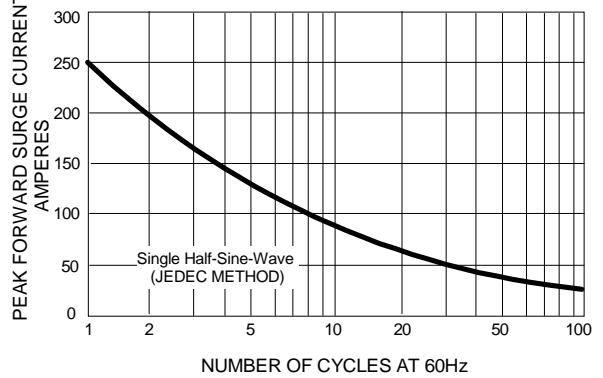


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

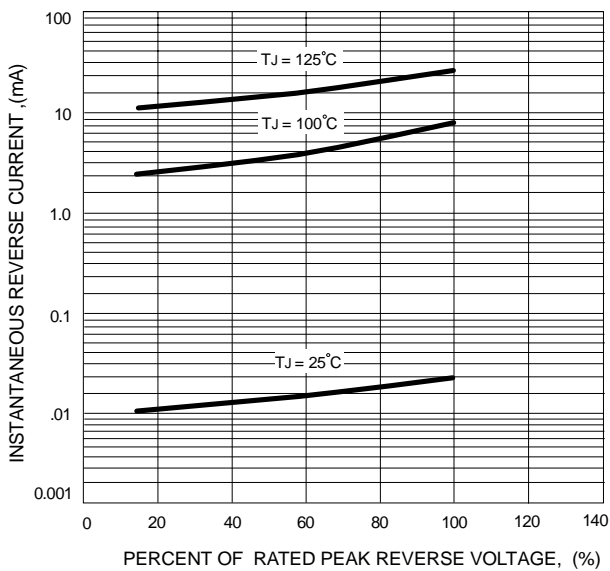


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

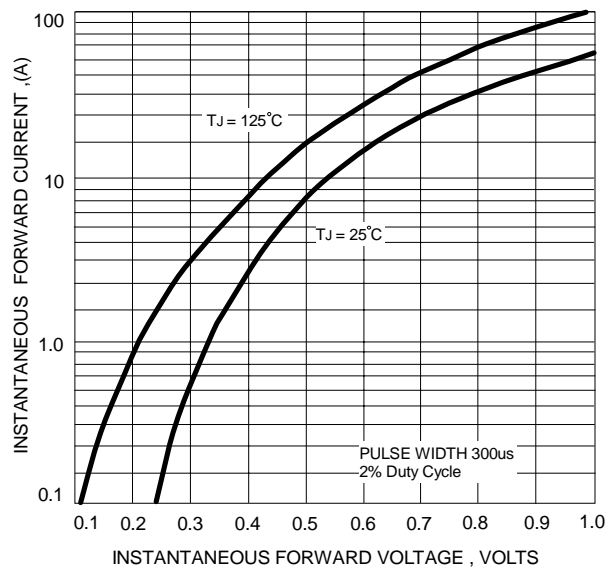


FIG.5 - TYPICAL JUNCTION CAPACITANCE

