Pb Free Plating Product

B2045G thru B20200G

20.0 Ampere Surface Mount Dual Common Cathode Schottky Barrier Rectifiers

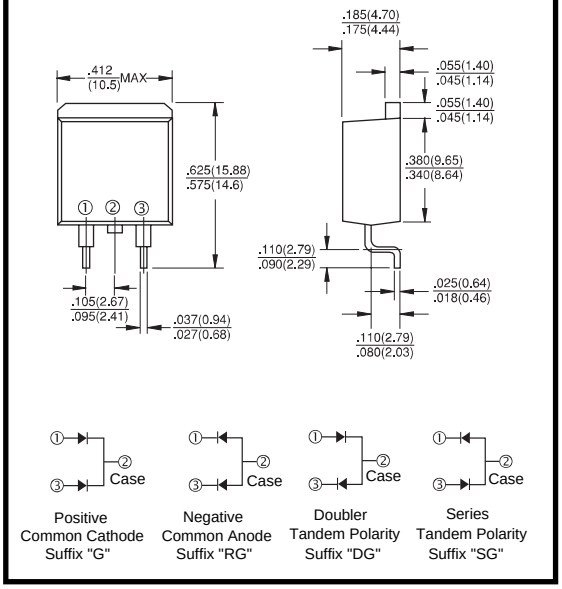
Features

- ThinkiSemi Planar Schottky Technology
- Good Soft Recovery Characteristics
- Ideally Suited for Automatic Assembly
- Low Forward Voltage
- High Surge Current Capability
- Low Leakage Current

Applications

- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS/LED SMPS/HID

D2PAK/TO-263AB — Unit : inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)							
PARAMETER	SYMBOL	B2045G	B2060G	B20100G	B20150G	B20200G	Unit
Marking code		B2045G	B2060G	B20100G	B20150G	B20200G	
Maximum repetitive peak reverse voltage	V_{RRM}	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	31	42	70	105	140	V
Maximum DC blocking voltage	V_{DC}	45	60	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	20					A
Peak repetitive forward current (Rated VR, Square wave, 20KHz)	I_{FRM}	20					A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150					A
Peak repetitive reverse surge current (Note 1)	I_{RRM}	1	0.5				A
Maximum instantaneous forward voltage (Note 2) I_F=10A, T_J=25°C I_F=10A, T_J=125°C	V_F	0.70 0.60	0.80 0.70	0.85 0.75	0.99 0.87		V
Maximum reverse current @ rated VR T_J=25°C T_J=125°C	I_R	0.1 15	10	5			mA
Voltage rate of change (Rated V_R)	dV/dt	10000					V/μs
Typical thermal resistance	$R_{\theta JC}$	1.5		2			°C/W
Operating junction temperature range	T_J	- 55 to +150					°C
Storage temperature range	T_{STG}	- 55 to +150					°C

Note 1: tp = 2.0 μs, 1.0KHz

Note 2: Pulse test with PW=300μs, 1% duty cycle

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RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

45V=B2045G
60V=B2060G
100V=B20100G
150V=B20150G
200V=B20200G

FIG.1 FORWARD CURRENT DERATING CURVE

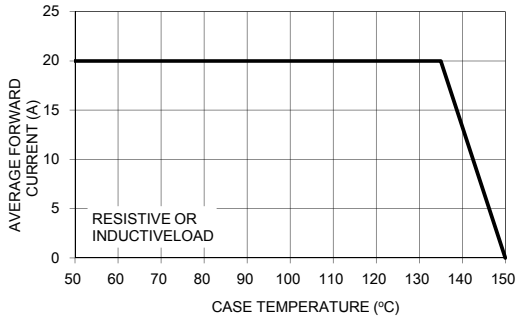


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

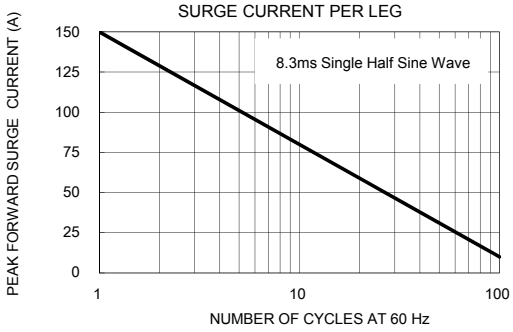


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

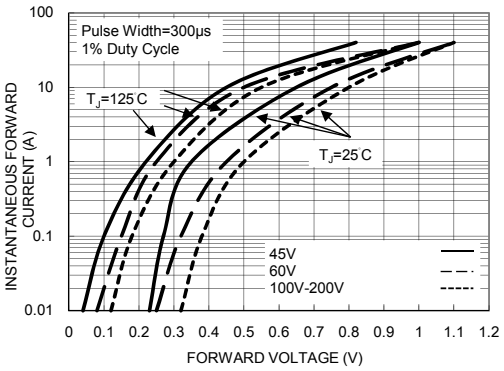


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

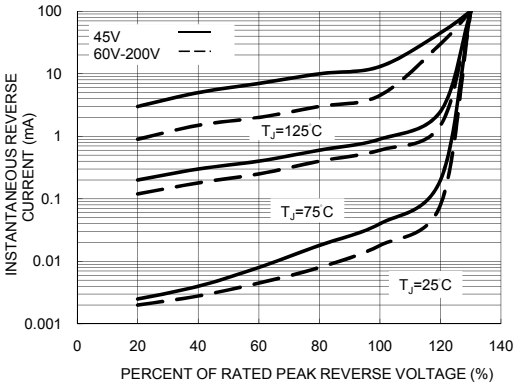


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

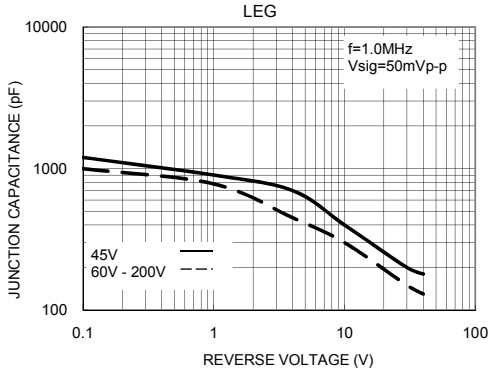
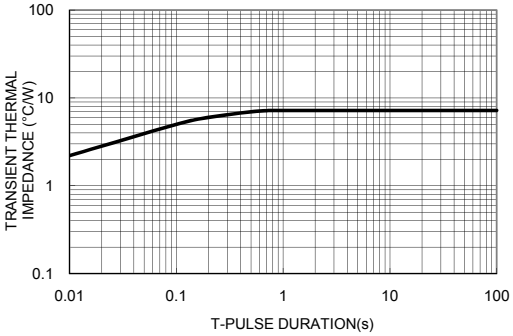


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



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