Pb Free Plating Product

U2020G/U2030G/U2040G/U2060G

20.0 Ampere Surface Mount Dual Common Cathode Ultra Fast Recovery Rectifiers

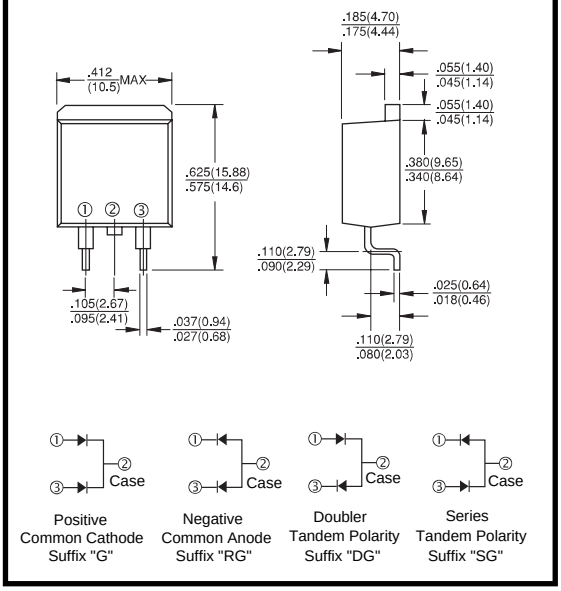
Features

- ✶ Latest GPP EPI P/G 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-263 Unit : inch (mm)



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	U2020G	U2030G	U2040G	U2060G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	300	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	210	280	420	V
Average Rectified Output Current Total Device @T_C = 110°C Per Diode	I_O	20 10				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	175				A
Forward Voltage per diode @I_F = 10 A	V_{FM}	0.98	1.30		1.7	V
Peak Reverse Current @T_C = 25°C At Rated DC Blocking Voltage @T_C = 100°C	I_{RM}	5 50				μA
Reverse Recovery Time (Note 1)	t_{rr}	35	50			nS
Typical Junction Capacitance (Note 2)	C_J	175			145	pF
Thermal Resistance Junction to Ambient per diode Thermal Resistance Junction to Case per diode	$R_{\theta JA}$ $R_{\theta JC}$	30 1.5				°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150				°C

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

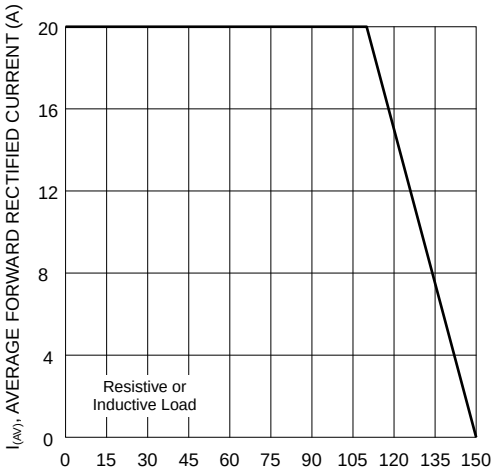


Fig. 1 Forward Current Derating Curve

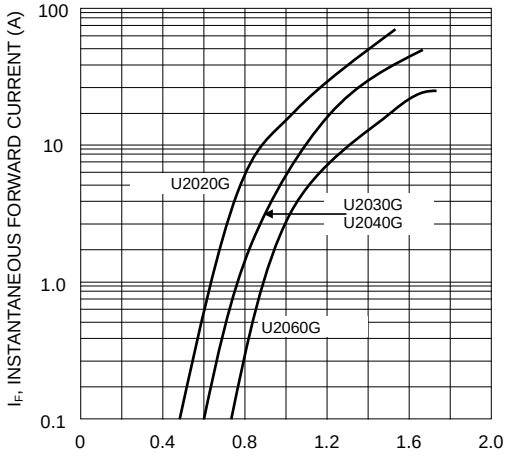


Fig. 2 Typical Forward Characteristics

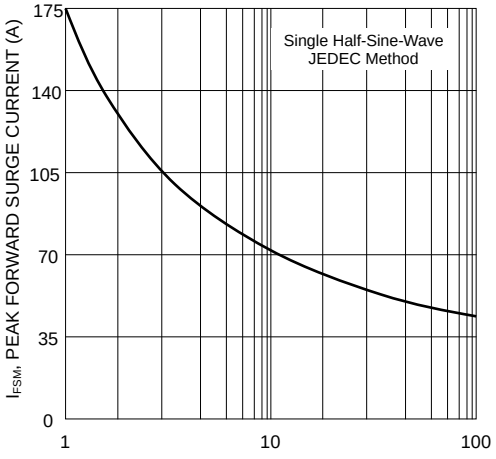


Fig. 3 Forward Surge Current Derating Curve

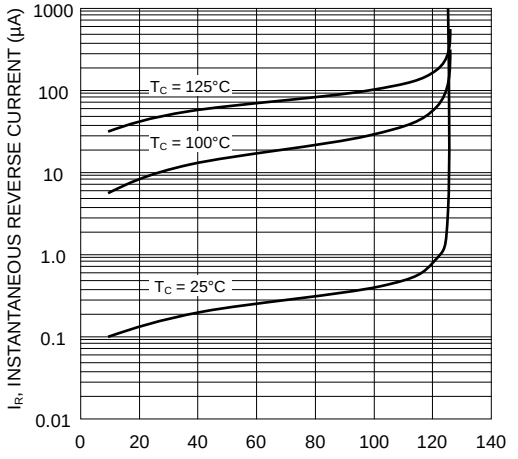


Fig. 4 Typical Reverse Characteristics

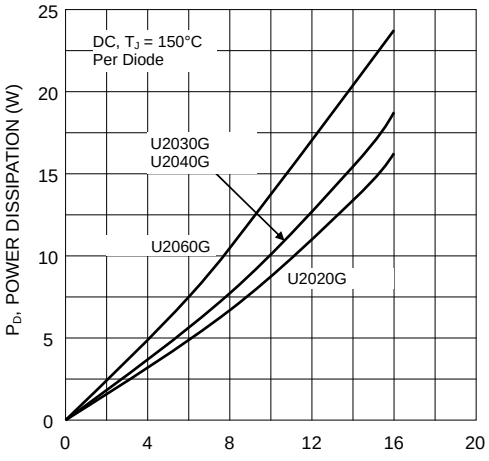


Fig. 5 Forward Power Dissipation

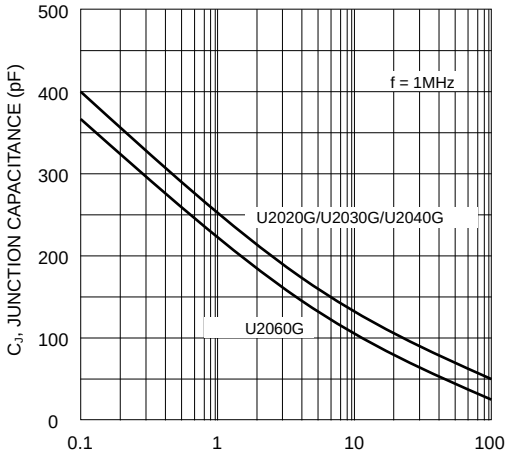


Fig. 6 Typical Junction Capacitance

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