

Pb Free Plating Product

U3020G/U3030G/U3040G/U3060G



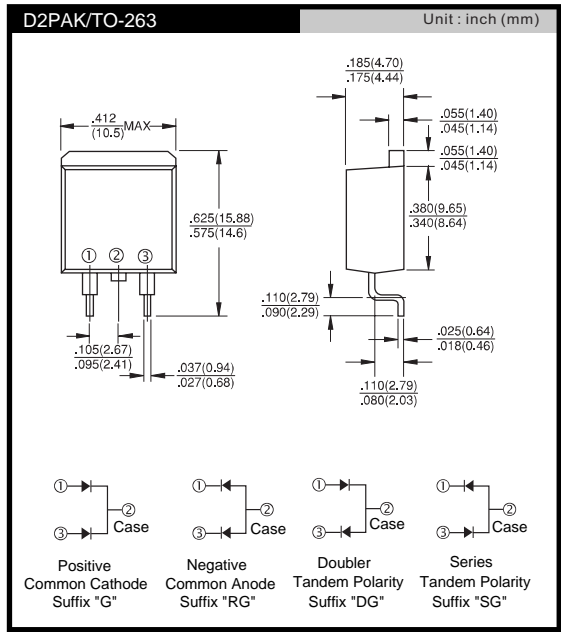
30.0 Ampere Surface Mount Dual Common Cathode Ultra Fast Recovery Rectifiers

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



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	U3020G	U3030G	U3040G	U3060G	Unit
Peak Repetitive Reverse Voltage	V _{RRM}					
Working Peak Reverse Voltage	V _{RWM}	200	300	400	600	V
DC Blocking Voltage	V _R					
RMS Reverse Voltage	V _{R(RMS)}	140	210	280	420	V
Average Rectified Output Current @T _C = 110°C	I _O		30	15		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}		200			A
Forward Voltage per diode @I _F = 15A	V _{FM}	1.05	1.25	1.7		V
Peak Reverse Current At Rated DC Blocking Voltage	I _{RM}		10	500		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	R _{JA}		30			°C/W
Thermal Resistance Junction to Case per diode	R _{JC}		1.5			
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.

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

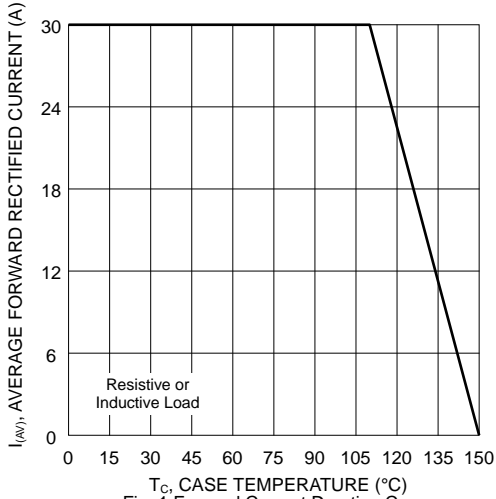


Fig. 1 Forward Current Derating Curve

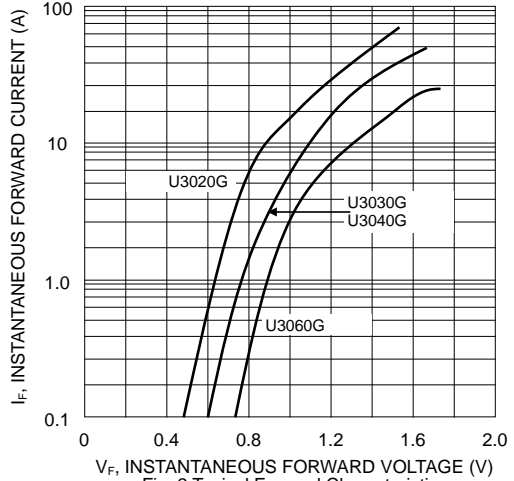


Fig. 2 Typical Forward Characteristics

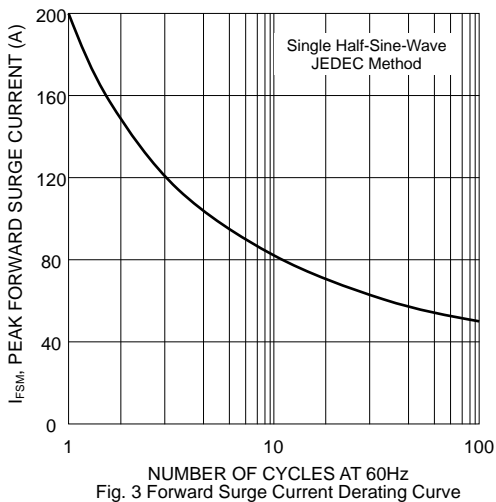


Fig. 3 Forward Surge Current Derating Curve

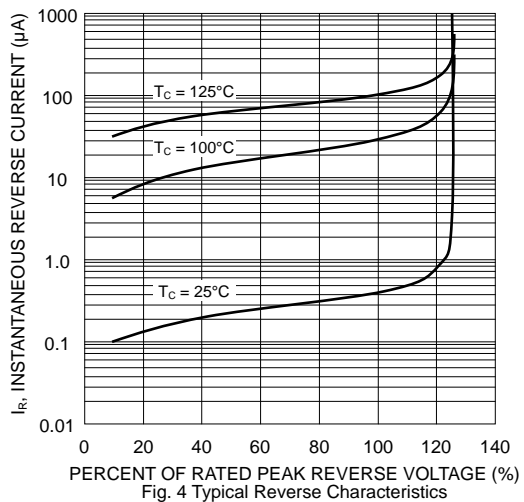


Fig. 4 Typical Reverse Characteristics

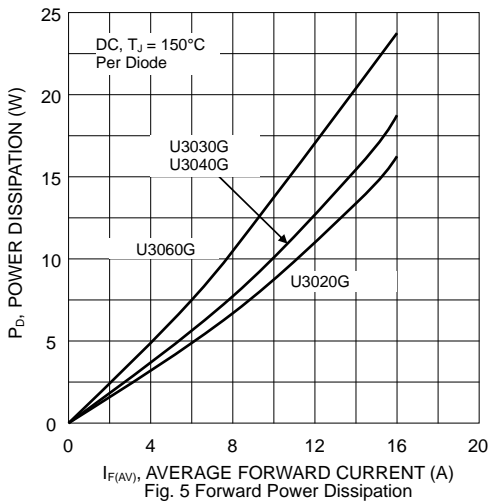


Fig. 5 Forward Power Dissipation

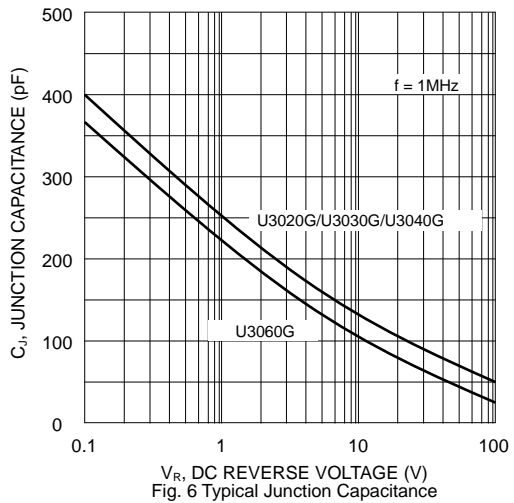


Fig. 6 Typical Junction Capacitance