

Pb Free Plating Product

U1620G/U1630G/U1640G/U1660G



16.0 Ampere Surface Mount Dual Common Cathode Ultra Fast Recovery Rectifiers

Features

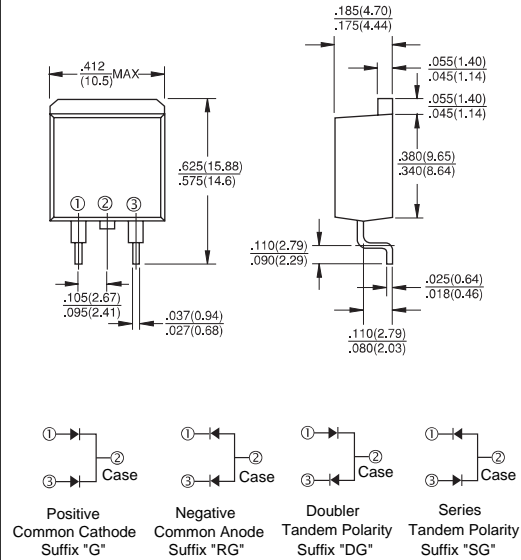
- ★ Latest GPP EPI P/G Technology
- ★ Good Soft Recovery Characteristics
- ★ Ideally Suited for Automatic Assembly
- ★ Low Forward Voltage
- ★ High Surge Current Capability
- ★ Low Leakage Current

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	U1620G	U1630G	U1640G	U1660G	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	200	300	400	600	V
Working Peak Reverse Voltage	V _{RWM}					
DC Blocking Voltage	V _R					
RMS Reverse Voltage	V _{R(RMS)}	140	210	280	420	V
Average Rectified Output Current @T _C = 100°C	I _O	16.0		8.0		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150				A
Forward Voltage per diode @I _F = 8.0A	V _{FM}	0.98	1.3	1.7		V
Peak Reverse Current At Rated DC Blocking Voltage @T _C = 25°C @T _C = 100°C	I _{RM}	5.0		100		μA
Reverse Recovery Time (Note 1)	t _{rr}	35				nS
Typical Junction Capacitance (Note 2)	C _J	70	50			pF
Thermal Resistance Junction to Ambient (Note 3)	R _{JA}	30				°C/W
Thermal Resistance Junction to Lead (Note 3)	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 4.0 V DC.
 3. Mounted on PCB with minimum recommended pad sizes per diode.

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

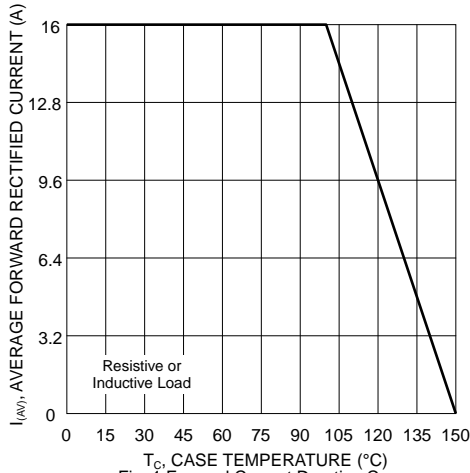


Fig. 1 Forward Current Derating Curve

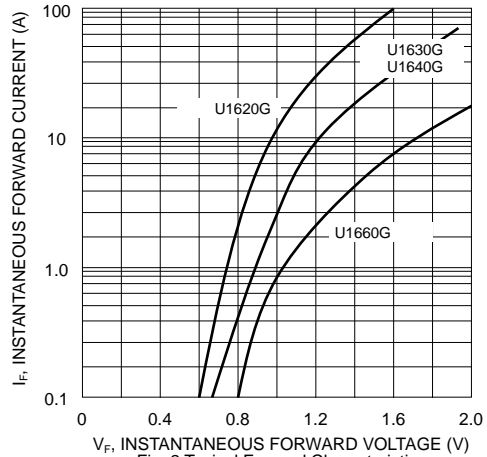


Fig. 2 Typical Forward Characteristics

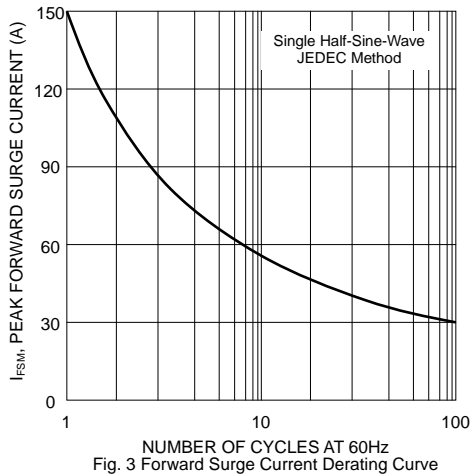


Fig. 3 Forward Surge Current Derating Curve

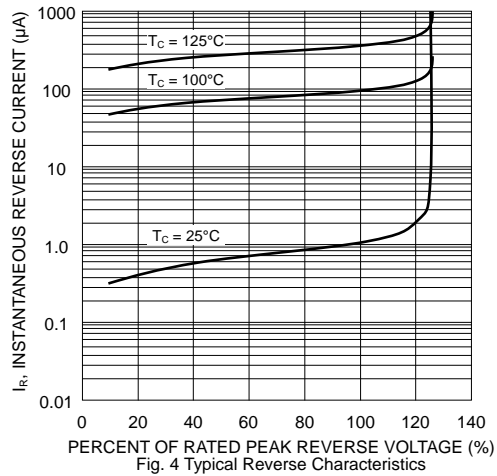


Fig. 4 Typical Reverse Characteristics

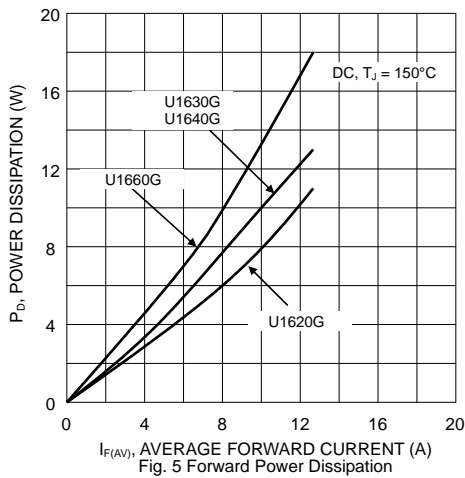


Fig. 5 Forward Power Dissipation

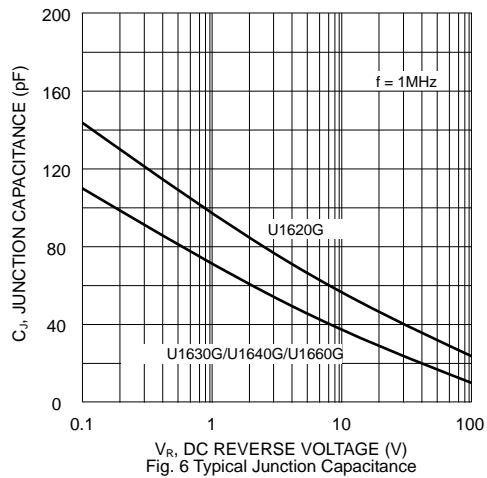


Fig. 6 Typical Junction Capacitance