

Pb Free Plating Product

U3020RG/U3030RG/U3040RG/U3060RG



30.0 Ampere Surface Mount Dual Common Anode Ultra Fast Recovery Rectifiers

Features

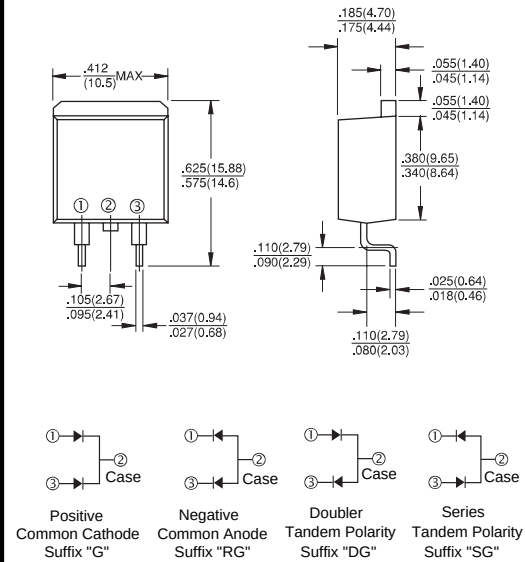
- ★ Latest GPP EPI P/G Technology
- ★ Good Soft Recovery Characteristics
- ★ Ideally Suited for Automatic Assembly
- ★ Low Forward Voltage
- ★ High Surge Current Capability
- ★ Low Leakage Current

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	U3020RG	U3030RG	U3040RG	U3060RG	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	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 @T _C = 25°C @T _C = 100°C	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 Thermal Resistance Junction to Case per diode	R _{θJA} R _{θJC}	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.

RATINGS AND CHARACTERISTICS CURVES

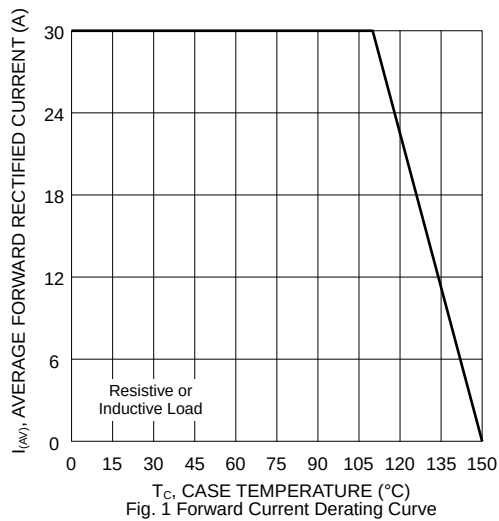
(T_A=25°C unless otherwise noted)

Fig. 1 Forward Current Derating Curve

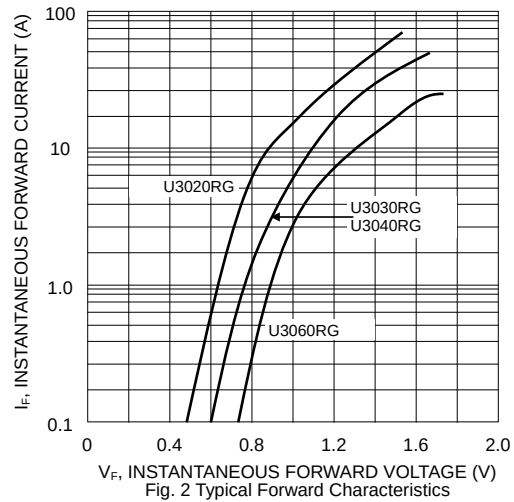


Fig. 2 Typical Forward Characteristics

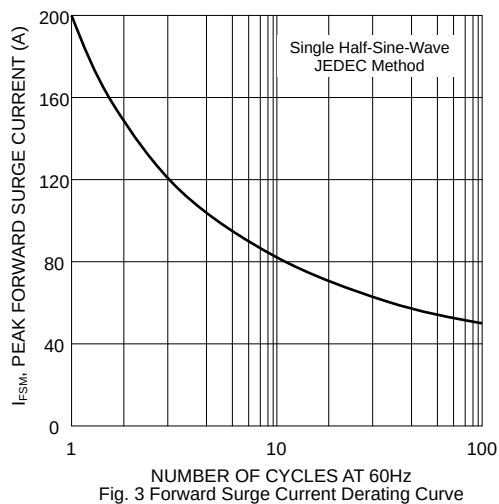


Fig. 3 Forward Surge Current Derating Curve

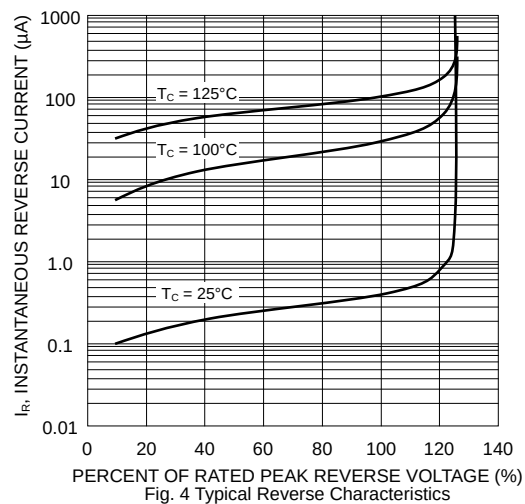


Fig. 4 Typical Reverse Characteristics

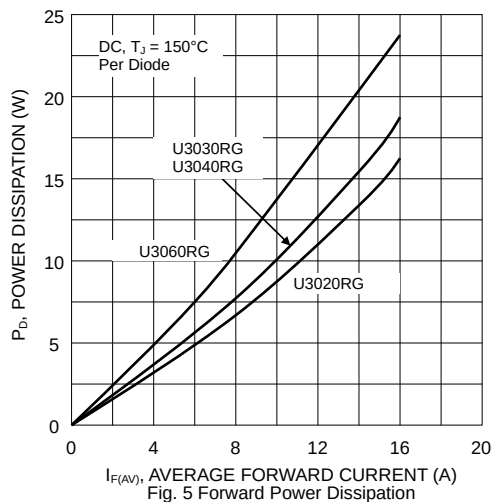


Fig. 5 Forward Power Dissipation

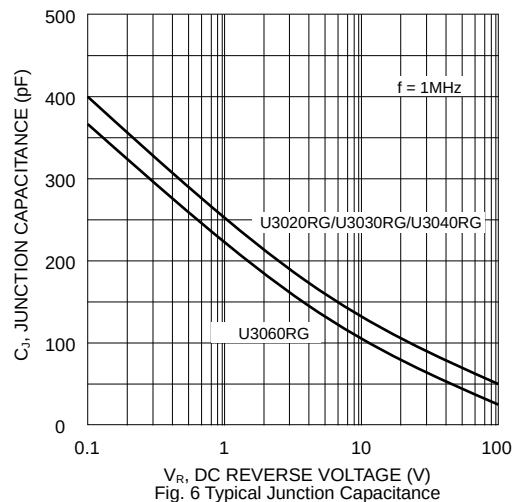


Fig. 6 Typical Junction Capacitance