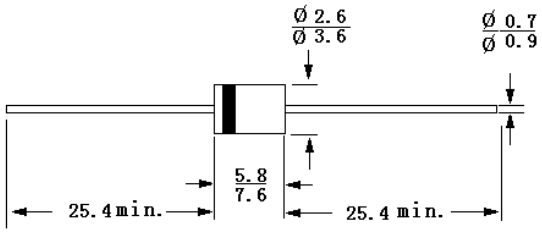
UG2A THRU UG2D

SUPER FAST RECTIFIERS
Reverse Voltage – 50 to 200 Volts
Forward Current – 2.0 Amperes

Features

- Super fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds, 0.375”(9.5mm) lead length, 5 lbs (2.3kg) tension

DO-15



Dimensions in mm

Mechanical Data

- **Case:** Molded plastic, JEDEC DO-15
- **Lead:** Plated axial leads, solderable per MIL-STD-750, method 2026 guaranteed
- **Polarity:** color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 0.014 ounce, 0.4 gram

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load, for current capacitive load current derate by 20%.

	Symbols	UG2A	UG2B	UG2C	UG2D	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	V
Maximum average forward rectified current .375”(9.5mm) lead length at T_A = 55 °C	$I_{(AV)}$	2.0				A
Peak forward surge current , 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80.0				A
Maximum instantaneous forward voltage @ 2.0A	V_F	0.95				V
Maximum DC reverse current @ T_A = 25 °C	I_R	5.0				uA
at rated DC blocking voltage @ T_A = 100 °C	I_R	50.0				uA
Maximum reverse recovery time (Note 1)	T_{rr}	35				nS
Typical junction capacitance (Note 2)	C_J	15.0				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	15.0				°C/W
Operating temperature range	T_J	-65 to +150				°C
Storage temperature range	T_S	-65 to +150				°C

Note: 1. Reverse recovery test conditions: I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0 Volts D.C.
3. Thermal Resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted.

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FIG.1-FORWARD CURRENT DERATING CURVE

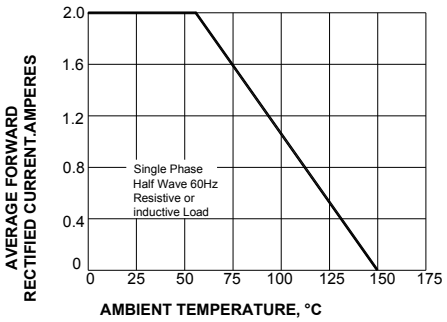

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

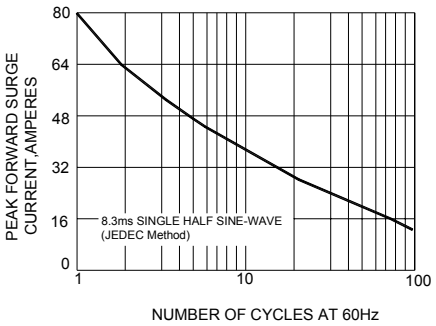

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

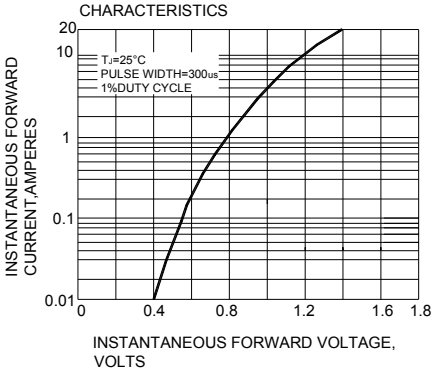

FIG.4-TYPICAL REVERSE CHARACTERISTICS

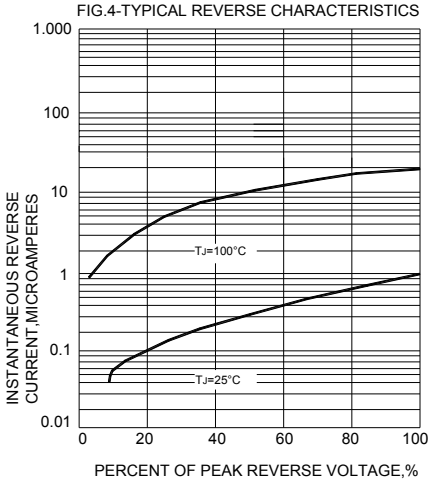

FIG.5-TYPICAL JUNCTION CAPACITANCE

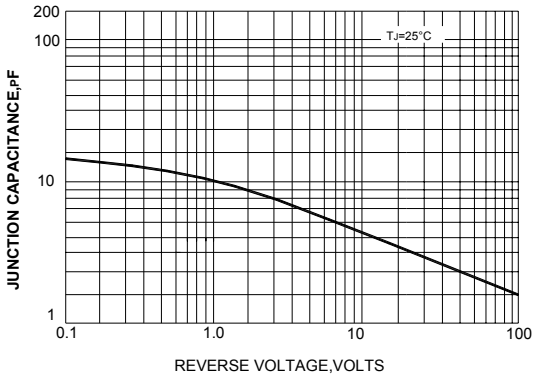

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE