

2A, 200V Glass Passivated Ultra Fast Rectifier

FEATURES

- Ultrafast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High surge current capability
- Low power loss, high efficiency
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



MECHANICAL DATA

Case: DO-204AC (DO-15)

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Pure tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

Weight: 0.33 g (approximately)

DO-204AC (DO-15)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	UG2D	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	200	V
Maximum RMS voltage	V _{RMS}	140	V
Maximum DC blocking voltage	V _{DC}	200	V
Maximum average forward rectified current	I _{F(AV)}	2	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	80	A
Maximum instantaneous forward voltage @ 2 A (Note 1)	V _F	T _J =25°C 0.95	V
		T _J =125°C 0.80	
Maximum reverse current @ rated V _R	I _R	T _J =25°C 5	μA
		T _J =125°C 200	
Maximum reverse recovery time (Note 2)	t _{rr}	15	ns
Typical reverse recovery time (Note 3)	t _{rr}	25	ns
Typical junction capacitance (Note 4)	C _J	35	pF
Typical thermal resistance	R _{θJA}	60	°C/W
Operating junction temperature range	T _J	- 55 to +150	°C
Storage temperature range	T _{STG}	- 55 to +150	°C

Note 1: Pulse Test with PW=300μs, 1% Duty Cycle

Note 2: Reverse Recovery Test Condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Note 3: Reverse Recovery Test Condition: I_F=2.0A, V_R=30V, dI/dt=50A/us, I_{rr}=10% I_{RM} for Measurement of t_{rr}

Note 4: Measured at 1MHz and Applied Reverse Voltage of 4.0 V D.C.

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
UG2D	A0	G	DO-15	1500 / Ammo box
	R0		DO-15	3,500 / 13" Paper reel
	B0		DO-15	1000 / Bulk packing

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
UG2D A0G	UG2D	A0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

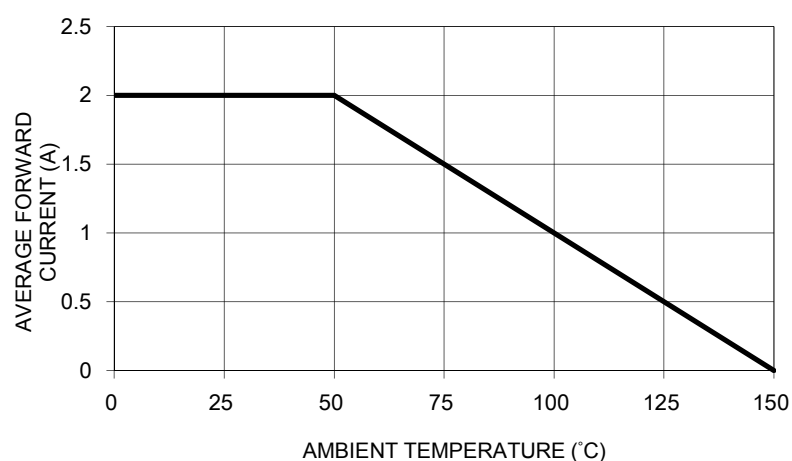


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

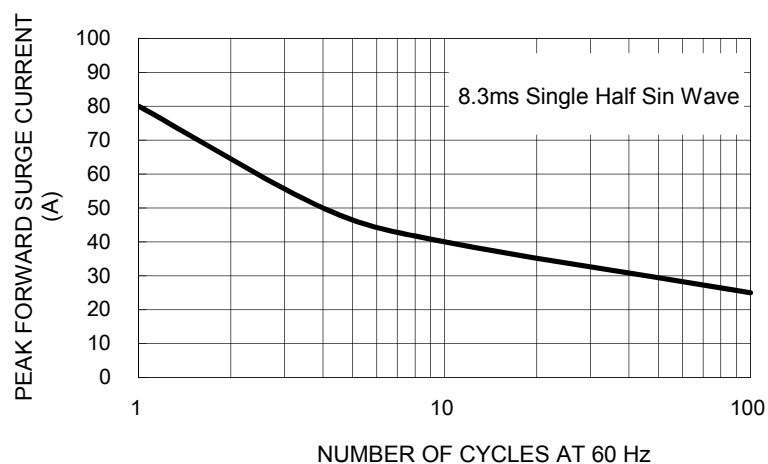


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

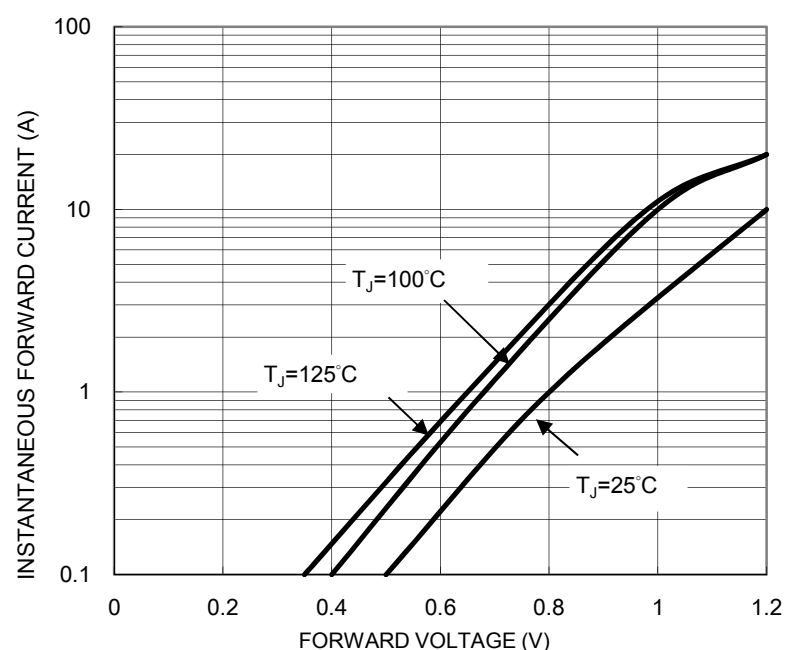


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

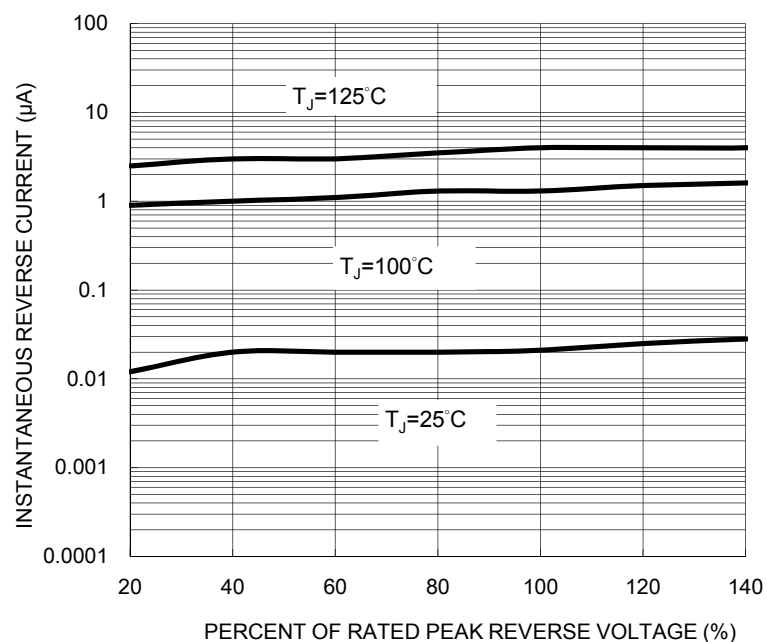


FIG. 5 TYPICAL JUNCTION CAPACITANCE

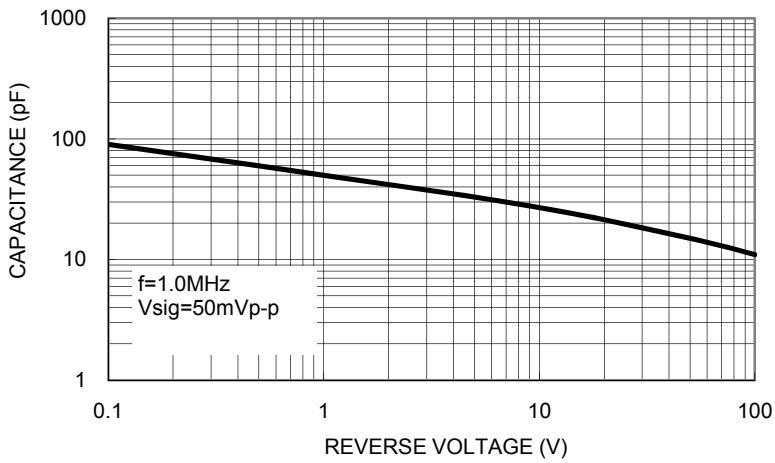
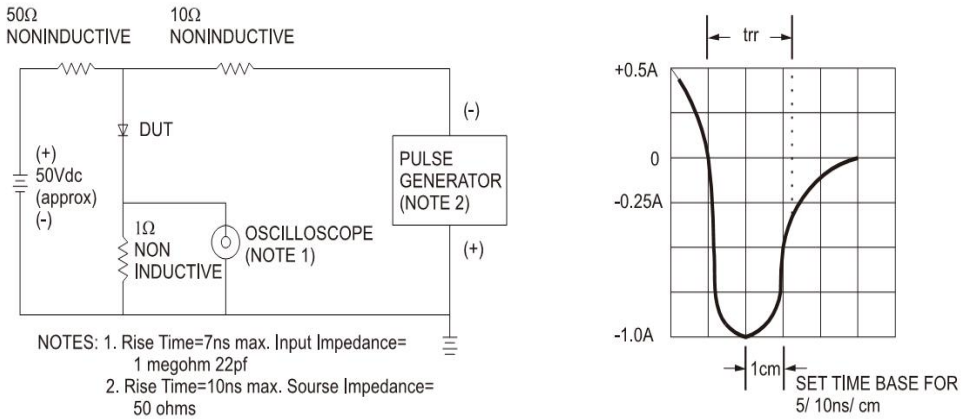
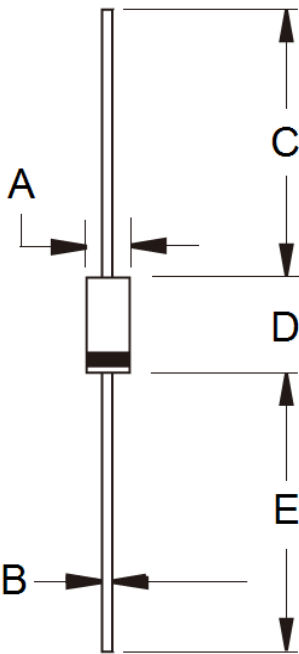


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS
DO-204AC (DO-15)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.60	3.60	0.102	0.142
B	0.70	0.90	0.028	0.035
C	25.40	-	1.000	-
D	5.80	7.60	0.228	0.299
E	25.40	-	1.000	-

MARKING DIAGRAM



P/N = Specific Device Code
G = Green Compound
YWW = Date Code
F = Factory Code

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