

FEATURES

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

TYPICAL APPLICATIONS

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication.

MECHANICAL DATA

- **Package:** DO-214AA (SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

MAXIMUM RATINGS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	UG2A	UG2B	UG2C	UG2D	UG2F	UG2G	UG2H	UG2J
Device marking code			UG2A	UG2B	UG2C	UG2D	UG2F	UG2G	UG2H	UG2J
Repetitive peak reverse voltage	VRRM	V	50	100	150	200	300	400	500	600
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	IO	A	2.0							
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, Ta=25°C	IFSM	A	50							
Storage temperature	Tstg	°C	-55~+150							
Junction temperature	Tj	°C	-55~+150							

ELECTRICAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	UG2A	UG2B	UG2C	UG2D	UG2F	UG2G	UG2H	UG2J	
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=2.0A	0.92			1.25		1.7			
Maximum reverse recovery time	tr	ns	IF=0.5A, IR=1.0A, IR=0.25A	25						35		
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	µA	Ta=25°C	5.0								
			Ta=125°C	50								

THERMAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	UG2A	UG2B	UG2C	UG2D	UG2F	UG2G	UG2H	UG2J
Typical Thermal resistance	RθJ-A(1)	°C/W	70 ¹⁾							
	RθJ-L(1)		18 ¹⁾							

Note: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x8.0 mm) copper pad areas

CHARACTERISTICS (TYPICAL)

FIG.1: Io-TL Curve

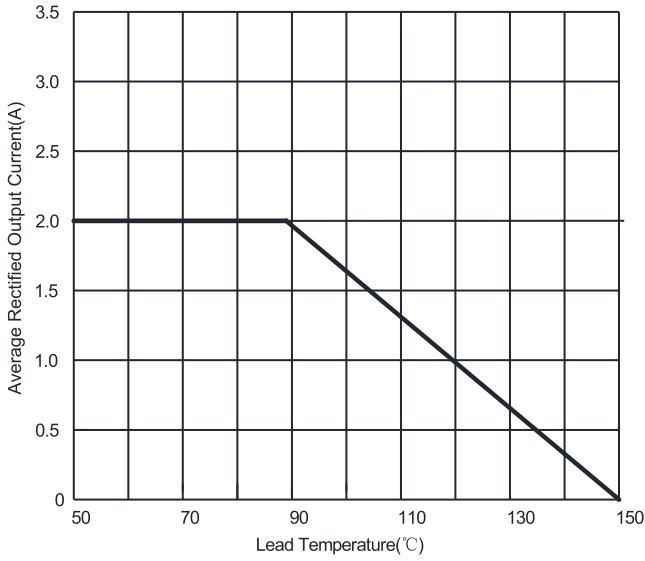


FIG2: Surge Forward Current Capability

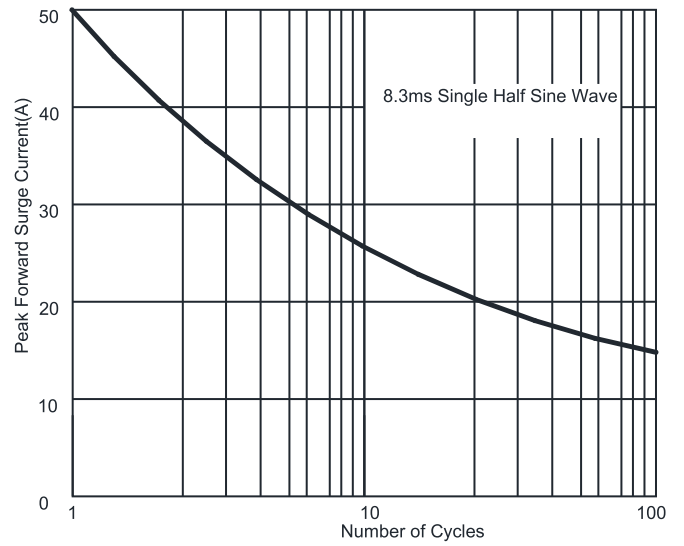


FIG.3: Typical Forward Characteristics

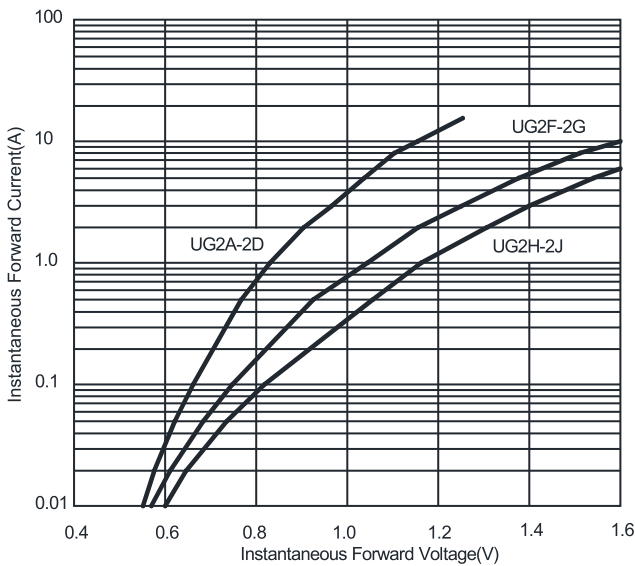


FIG4: Typical Reverse Characteristics

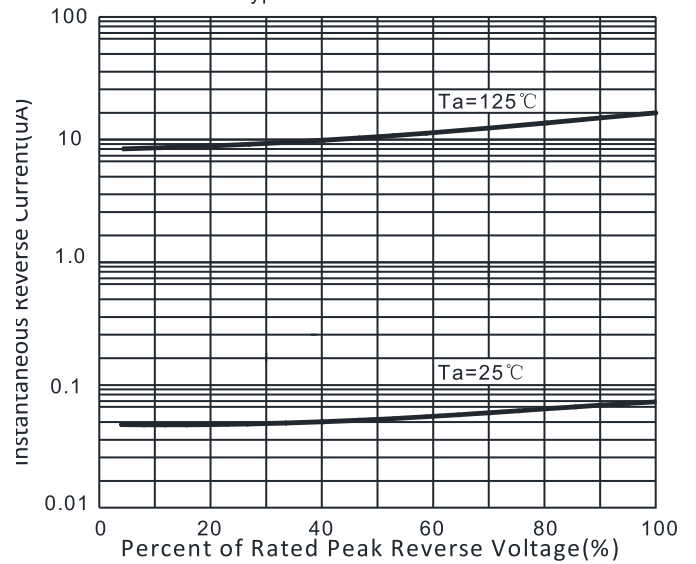
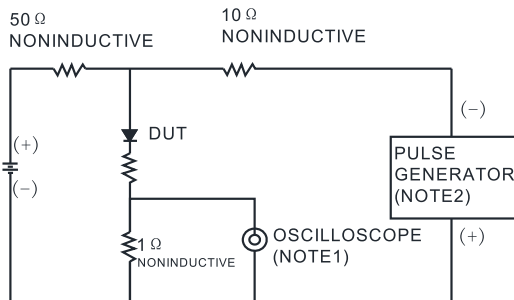
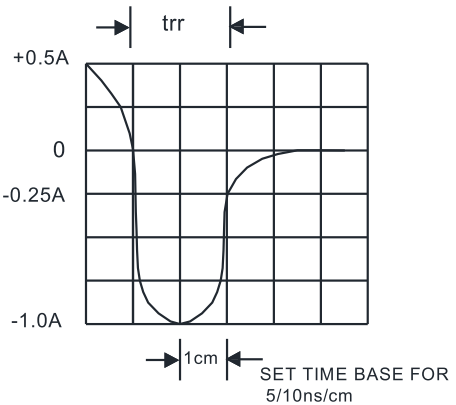


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



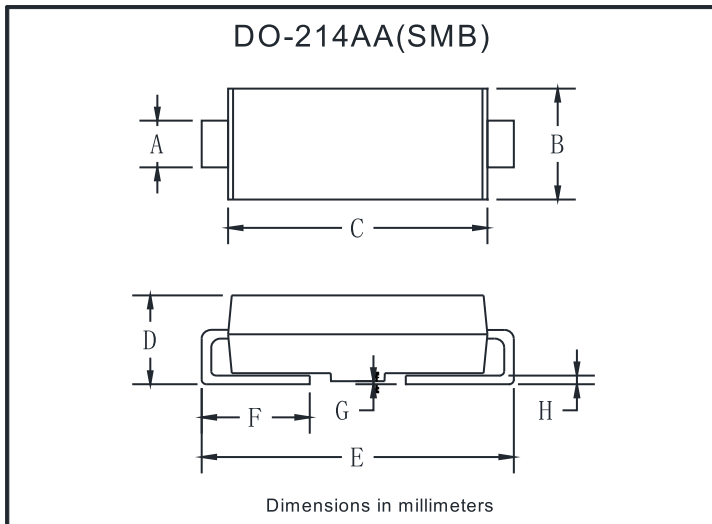
- NOTES:
 1. Rise Time=7ns max .Input Impedance=1MΩ 22pf
 2. Rise Time=10ns max. Source Impedance=50Ω



■ **PACKAGING INFORMATION**

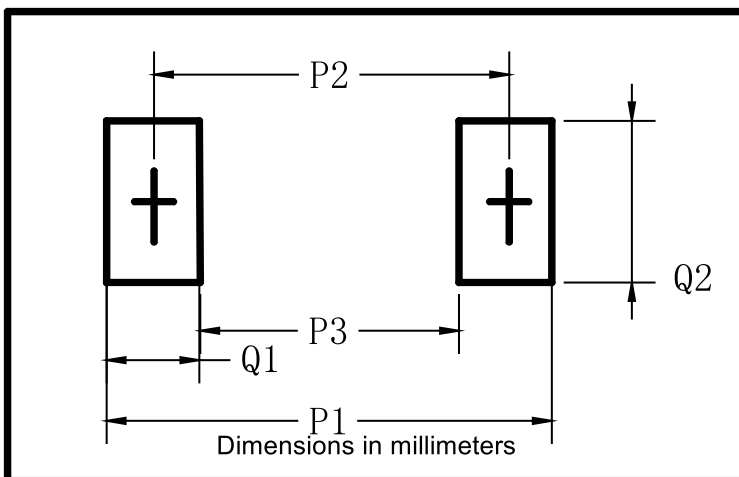
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
UG2A-UG2J	F1	Approximate 0.096	3000	6000	48000	13" reel
UG2A-UG2J	F2	Approximate 0.096	750	3000	24000	7" reel
UG2A-UG2J	F3	Approximate 0.096	500	2000	16000	7" reel

■ **OUTLINE DIMENSIONS**



DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.25	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.10	0.20
H	0.15	0.31

■ **SUGGESTED PAD LAYOUT**



DO-214AA(SMB)	
Dim	Millimeters
P1	6.8
P2	4.3
P3	1.8
Q1	2.5
Q2	2.3