

FEATURES

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

TYPICAL APPLICATIONS

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

MECHANICAL DATA

- **Package:** DO-214AC (SMA)
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 (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GR2AA	GR2BA	GR2DA	GR2GA	GR2JA	GR2KA	GR2MA
Device marking code			GR2AA	GR2BA	GR2DA	GR2GA	GR2JA	GR2KA	GR2MA
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	I _O	A	2						
Surge(non-repetitive)forward current @ 60Hz Half-sine wave, 1 cycle, T _a =25°C	IFSM	A	50						
Storage temperature	T _{stg}	°C	-55 ~ +150						
Junction temperature	T _j	°C	-55 ~ +150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GR2AA	GR2BA	GR2DA	GR2GA	GR2JA	GR2KA	GR2MA
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2.0A	1.3						
Maximum reverse recovery time	t _r	ns	I _F =0.5A, I _R =1.0A, I _r =0.25A	150			250		500	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRR _M	μA	T _a =25°C	5						
			T _a =125°C	100						

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

PARAMETER	SYMBOL	UNIT	GR2AA	GR2BA	GR2DA	GR2GA	GR2JA	GR2KA	GR2MA
Typical Thermal Resistance	R _{θJ-A} (1)	°C/W	65 ⁽¹⁾						
	R _{θJ-L} (1)	°C/W	25 ⁽¹⁾						

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

PACKAGING INFORMATION

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GR2AA- GR2MA	Omit for Standard	Approximate 0.059	5000	10000	80000	13" reel
GR2AA- GR2MA	X07	Approximate 0.059	1800	7200	57600	7" reel

CHARACTERISTICS (Typical)

FIG.1: Io-TL Curve

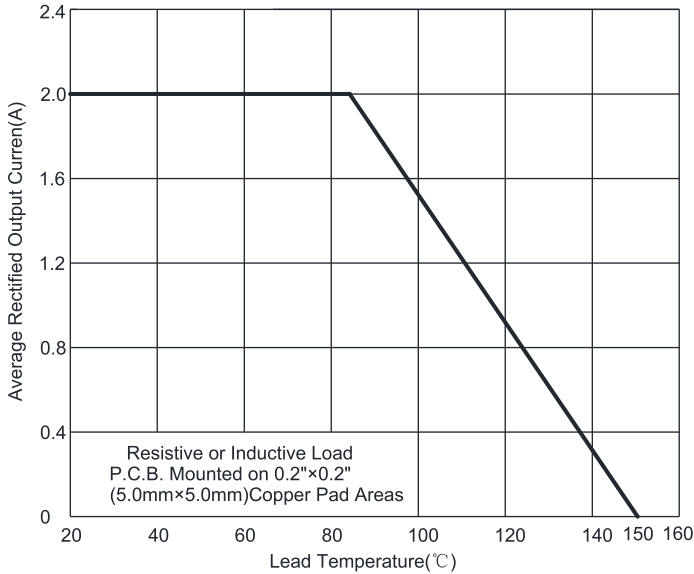


FIG2: Surge Forward Current Capability

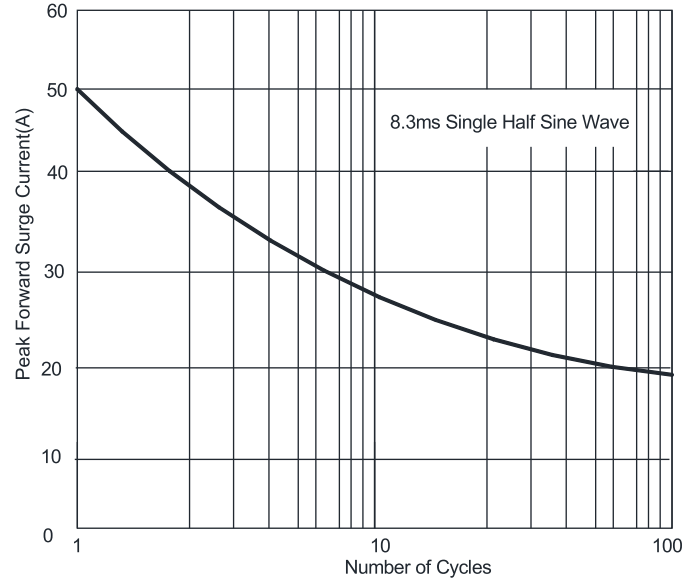


FIG.3: Typical Forward Characteristics

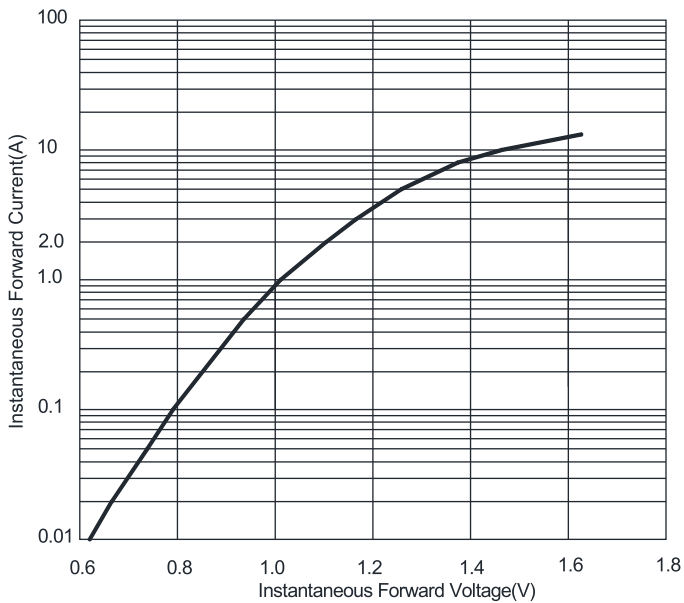


FIG4: Typical Reverse Characteristics

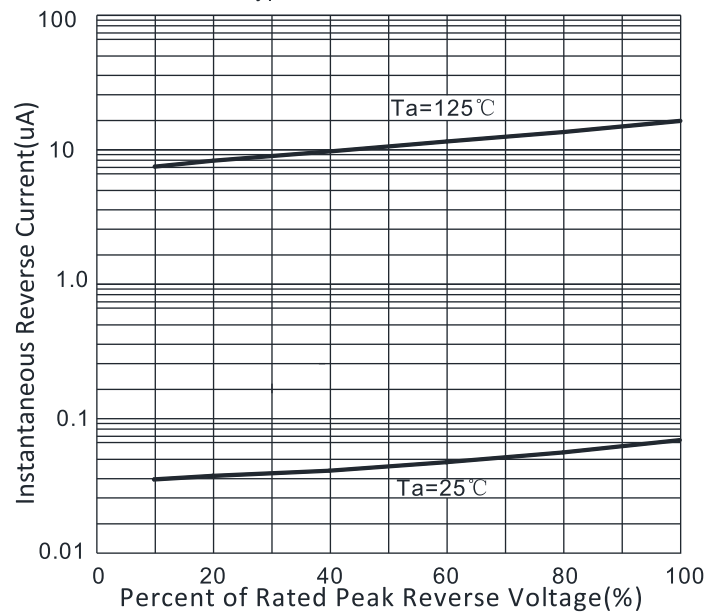
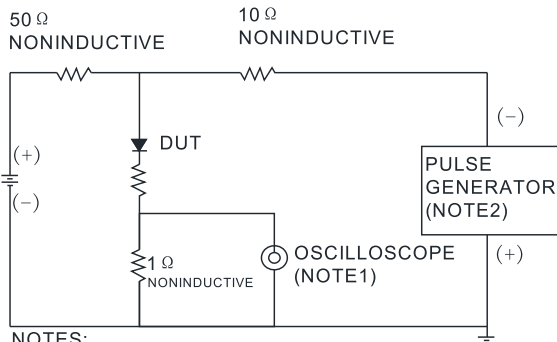
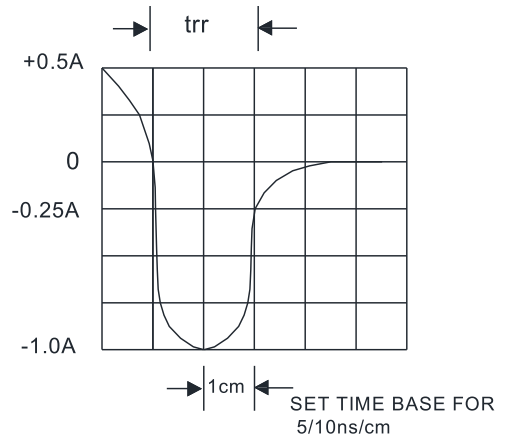


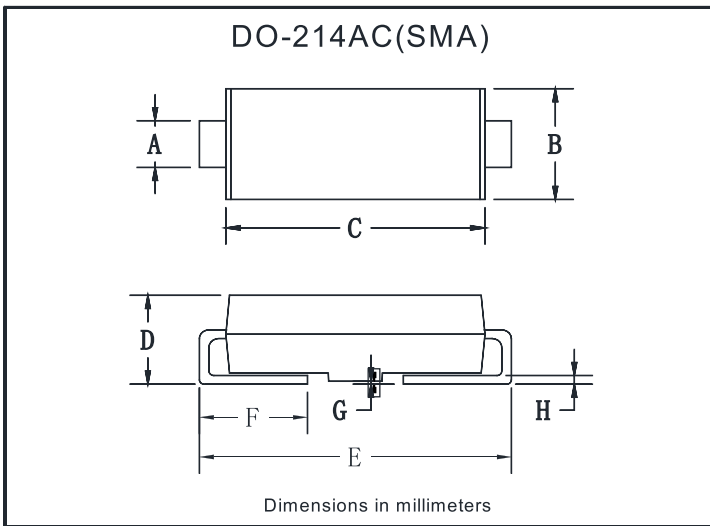
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



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

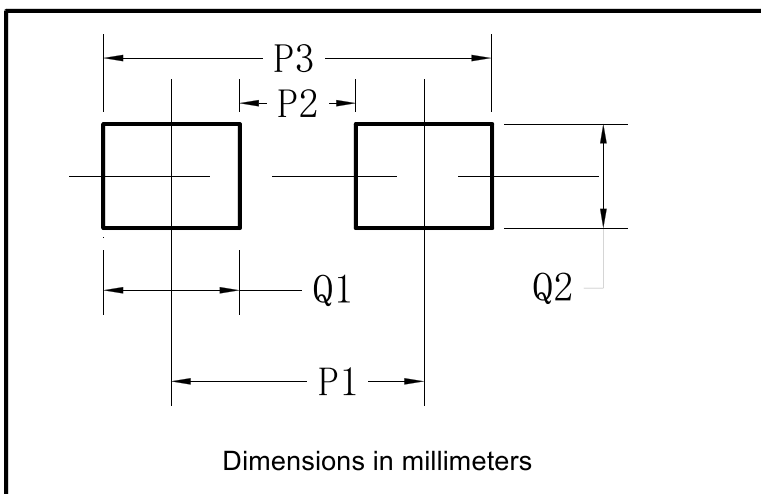


OUTLINE DIMENSIONS



DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.25	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.08	0.20
H	0.15	0.31

SUGGESTED PAD LAYOUT



DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
P3	6.50
Q1	2.50
Q2	1.70