

FEATURES

- High current capability
- High reliability
- High surge current capability
- Low power loss
- Solder dip 260 °C max. 10 s, per JESD 22-B106

MECHANICAL DATA

- **Package:** DO-214AB (SMC)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

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

PARAMETER	SYMBOL	UNIT	GR5A	GR5B	GR5D	GR5G	GR5J	GR5K	GR5M
Device marking code			GR5A	GR5B	GR5D	GR5G	GR5J	GR5K	GR5M
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I_o	A	5.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Ta=25°C	I_{FSM}	A	120						
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	GR5A	GR5B	GR5D	GR5G	GR5J	GR5K	GR5M
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=5.0A$	1.3						
Maximum reverse recovery time	T_{RR}	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	150			250		500	
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Ta=25°C	5						
			Ta=125°C	100						
Typical junction capacitance	C_j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	40						

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

PARAMETER	SYMBOL	UNIT	GR5A	GR5B	GR5D	GR5G	GR5J	GR5K	GR5M
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	47 ⁽¹⁾						
	Junction to lead	$R_{\theta J-L}$	13 ⁽¹⁾						

Note (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 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
GR5A~GR5M	F1	Approximate 0.254	3000	6000	42000	13" reel

CHARACTERISTICS (Typical)

FIG.1: I_o -TL Curve

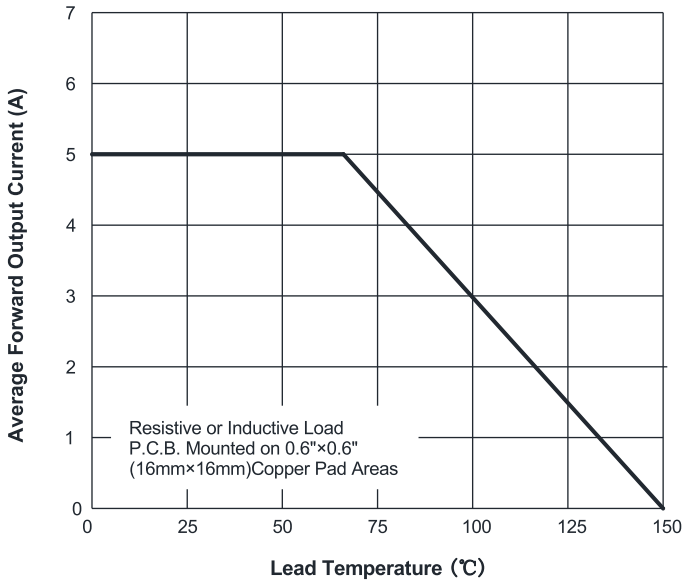


FIG.2: Forward Surge Current Capability

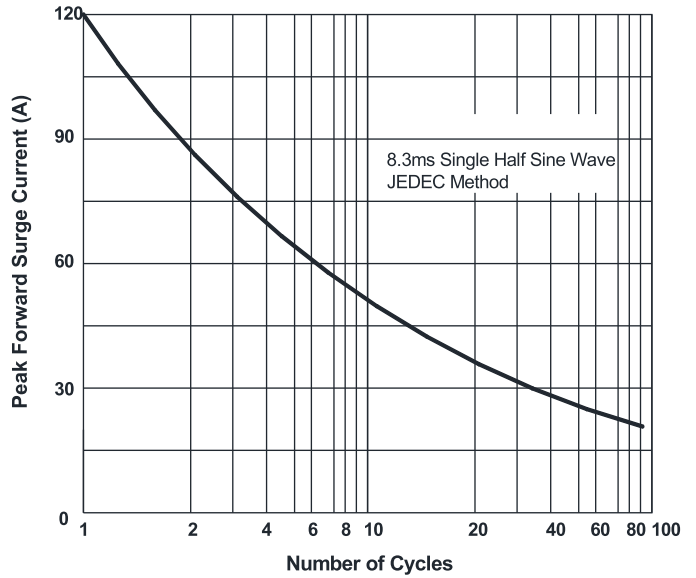


FIG.3: Forward Voltage

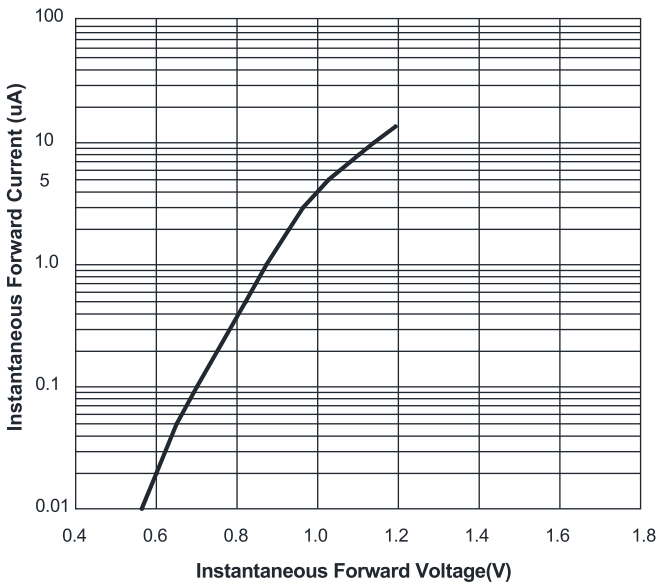


FIG.4: Typical Reverse Characteristics

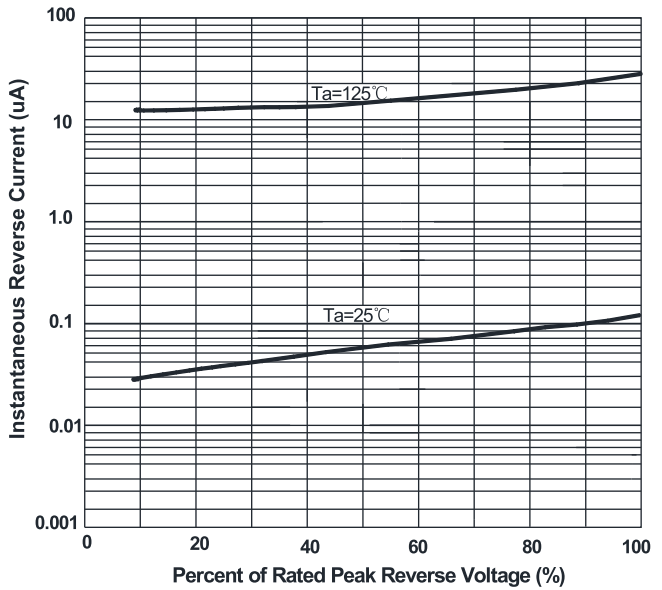
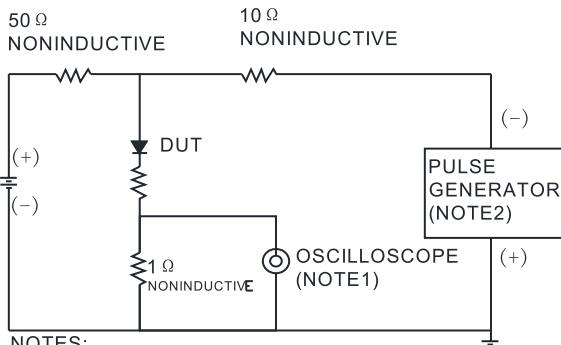
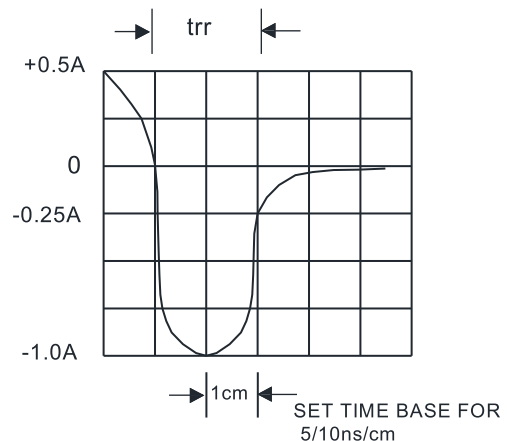


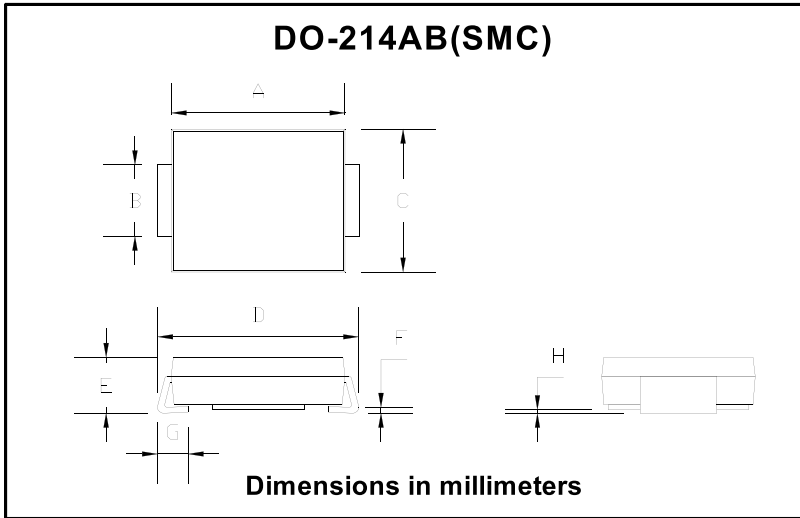
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



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

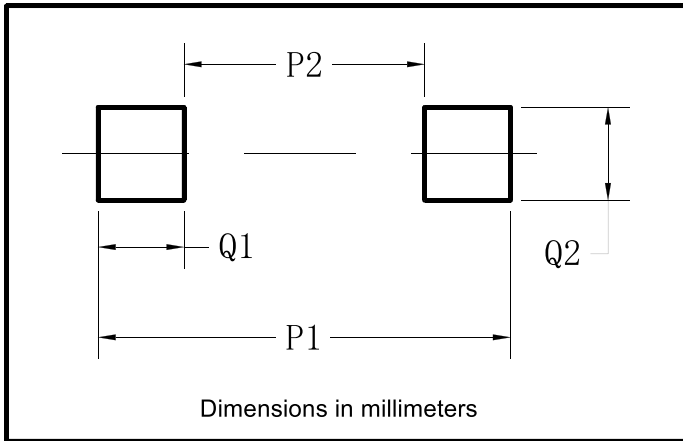


■ **OUTLINE DIMENSIONS**



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.10	0.20

■ **SUGGESTED PAD LAYOUT**



DO-214AB (SMC)	
Dim	Min
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82