

## FEATURES

- High current capability
- High Reliability
- High forward surge current capability
- 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 (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	HS5A	HS5B	HS5D	HS5F	HS5G	HS5J	HS5K	HS5M
Device marking code			HS5A	HS5B	HS5D	HS5F	HS5G	HS5J	HS5K	HS5M
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	300	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I <sub>o</sub>	A	5.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	150							
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150							
Junction Temperature	T <sub>j</sub>	°C	-55 ~+150							

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HS5A	HS5B	HS5D	HS5F	HS5G	HS5J	HS5K	HS5M	
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =5.0A	1.0			1.3	1.7				
Maximum reverse recovery time	T <sub>RR</sub>	ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	50					75			
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	µA	T <sub>a</sub> =25°C	5								
			T <sub>a</sub> =125°C	100								
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	85				60				

## THERMAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	HS5A	HS5B	HS5D	HS5F	HS5G	HS5J	HS5K	HS5M
Thermal Resistance	Junction to ambient	R <sub>θJ-A</sub>	47 <sup>1)</sup>							
	Junction to lead	R <sub>θJ-L</sub>	13 <sup>1)</sup>							

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
HS5A~HS5M	Omit for Standard	Approximate 0.254	3000	6000	42000	13" reel

**CHARACTERISTICS (Typical)**

FIG.1: Io-TL Curve

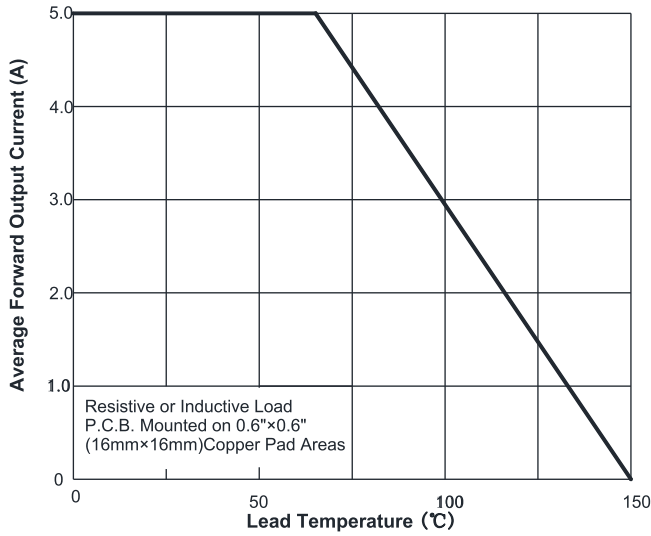


FIG.2: Forward Surge Current Capability

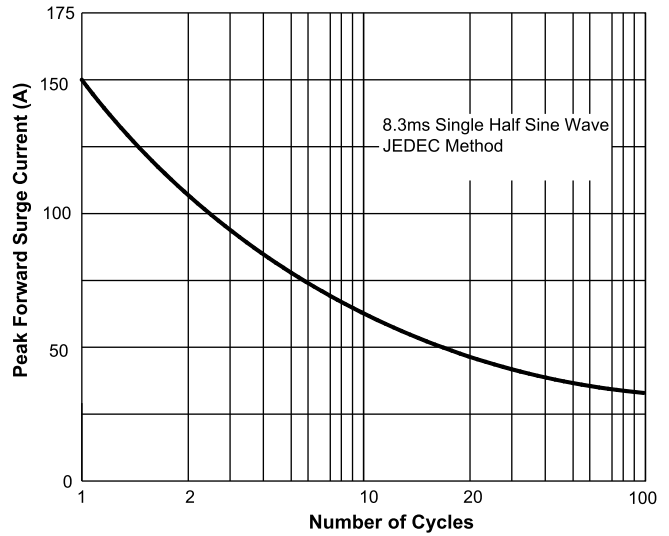


FIG.3: Forward Voltage

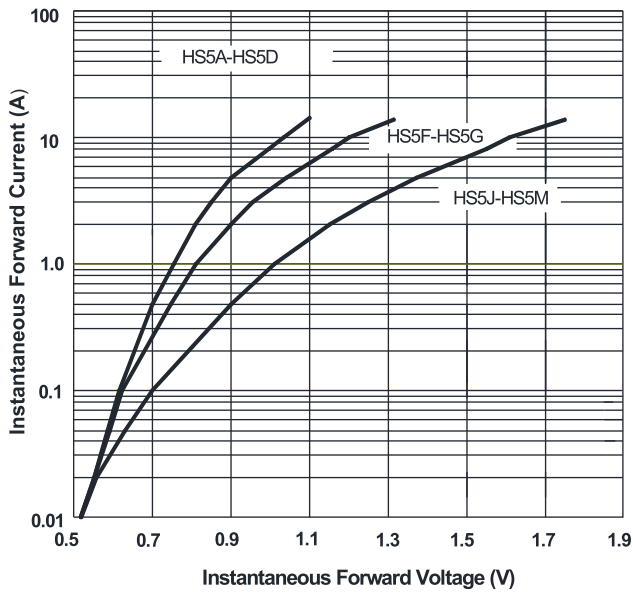


FIG.4: Typical Reverse Characteristics

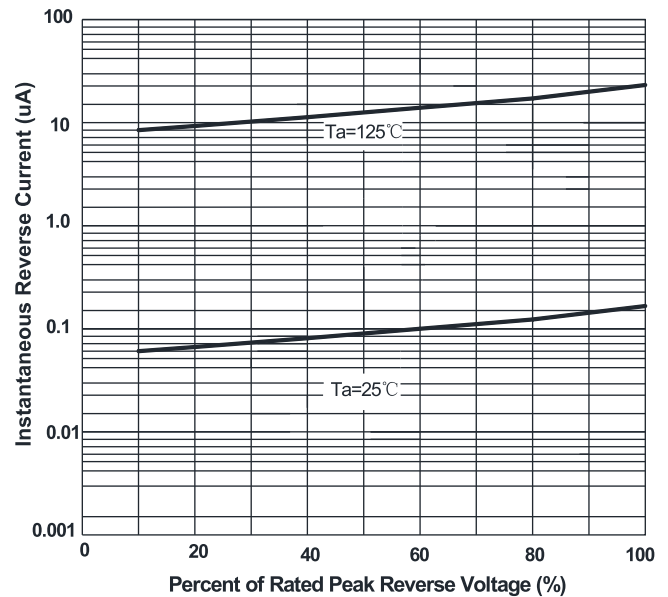
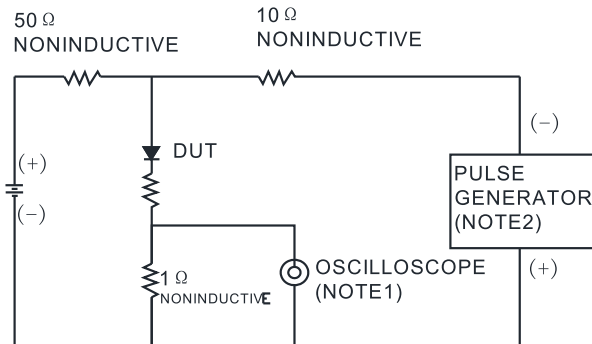
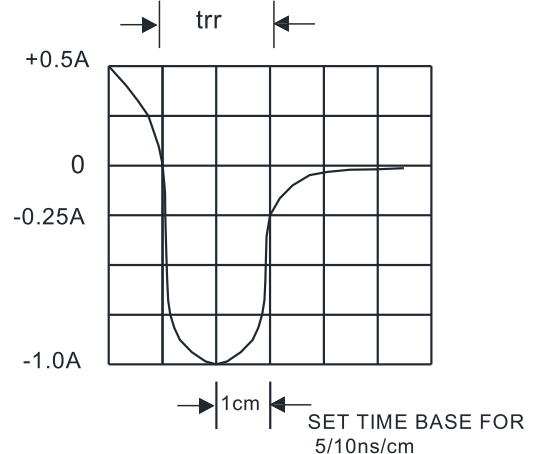


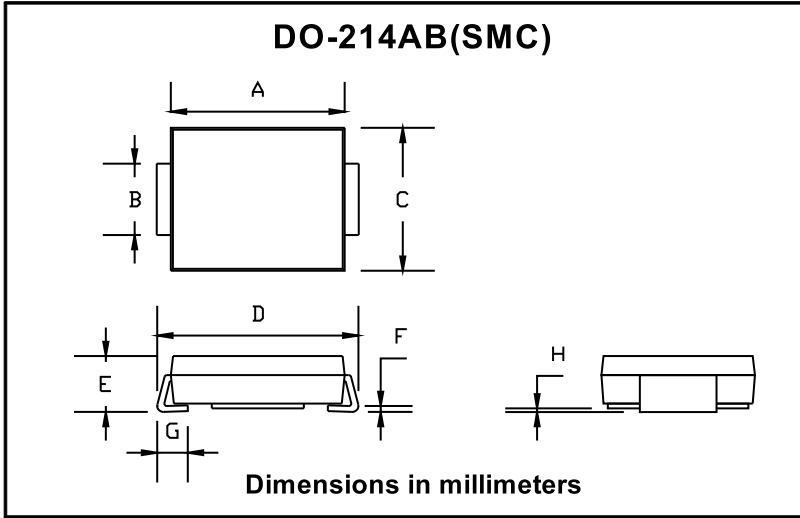
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



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

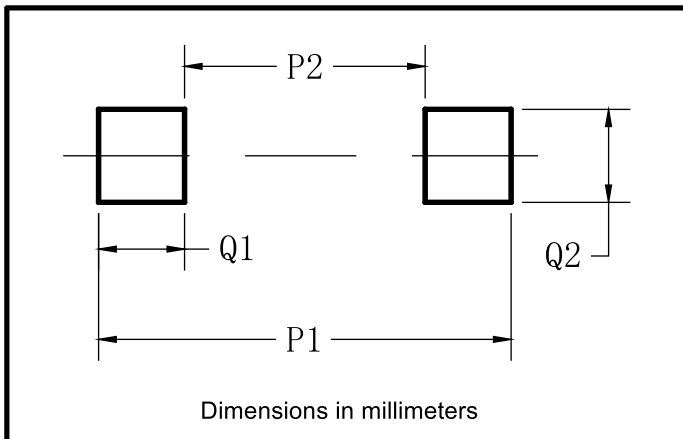


■ **OUTLINE DIMENSIONS**



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**



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82