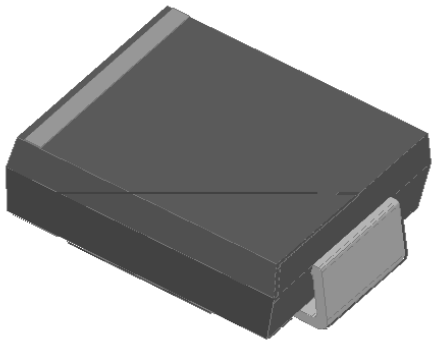
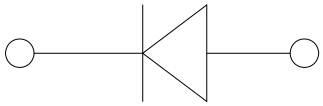
Super Fast Recovery Rectifier Diode





Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Solder dip 260°C max. 10 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.

Mechanical Data

- **P**ackage: DO-214AB (SMC)

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: Color band denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	ES5A	ES5B	ES5C	ES5D	ES5F	ES5G	ES5H	ES5J
Device marking code			ES5A	ES5B	ES5C	ES5D	ES5F	ES5G	ES5H	ES5J
	I									
	o	A	5.0							
Forward Surge Current (Non-repetitive)										
	-55 ~ +150									
Junction Temperature	Tj		-55 ~ +150							

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	ES5A	ES5B	ES5C	ES5D	ES5F	ES5G	ES5H	ES5J
Maximum instantaneous forward voltage	V_F	V	IFM=5.0A	0.95				1.3		1.7	
Maximum reverse recovery time	t_{rr}	ns	IF=0.5A,IR=1.0A, Irr=0.25A	35							
Maximum DC reverse current at rated DC blocking voltage	IR	μA	Tj =25	5							
			Tj =125	100							
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	75				37		35	

■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	ES5A	ES5B	ES5C	ES5D	ES5F	ES5G	ES5H	ES5J
Typical Thermal Resistance	$R_{\theta J-A}$(1)	/W	50							
	$R_{\theta J-L}$(1)		15							
	$R_{\theta J-C}$(1)		12							

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

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ES5A~ES5J	F1	Approximate 0.254	3000	/	42000	13” reel

■ Characteristics(Typical)

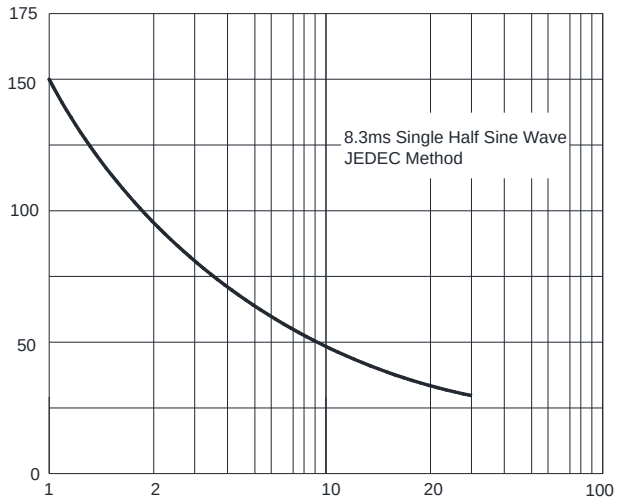
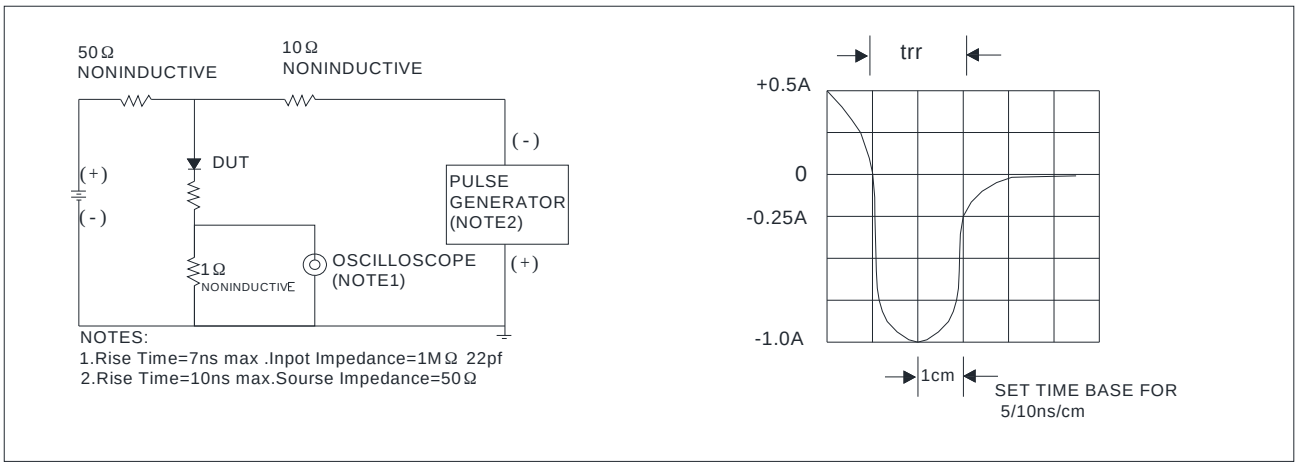
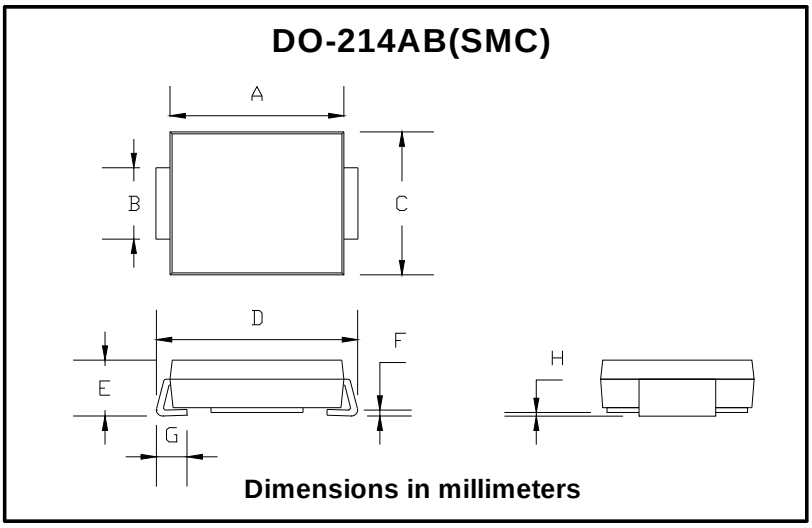


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

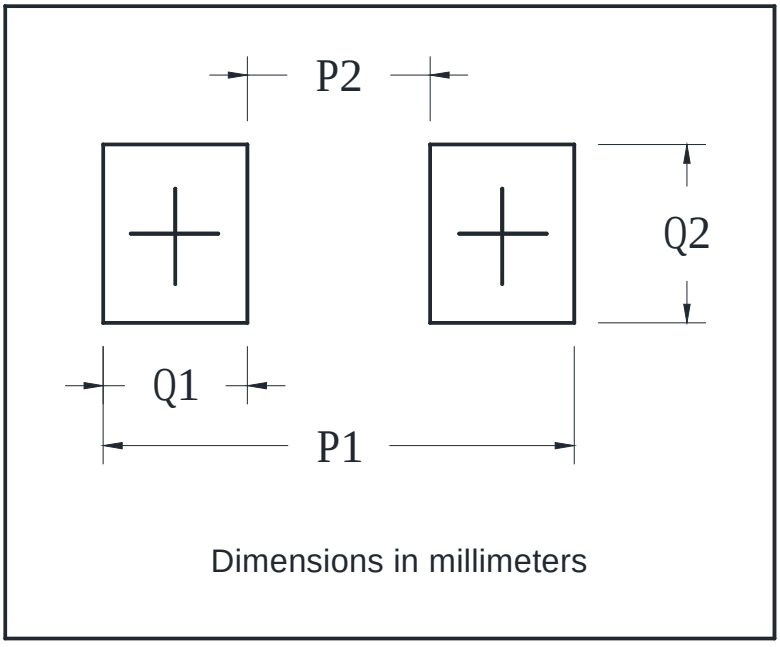


■ Outline Dimensions



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	0.05	0.20

■ Suggested pad layout



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

Disclaimer

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