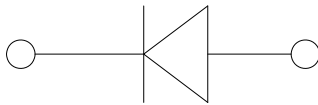
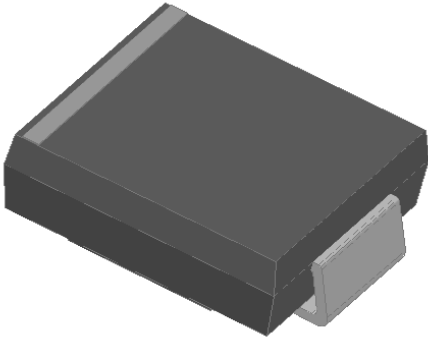


Surface Mount Super Fast Recovery Rectifier



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

- **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 the cathode end

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J
Device marking code			ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J
Repetitive Peak Reverse Voltage	VRRM	V	50	100	150	200	300	400	500	600
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	IO	A	3.0							
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave,1 cycle, Ta=25°C	IFSM	A	100							
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	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=3.0A	0.95				1.3		1.7	
Maximum reverse recovery time	TRR	ns	IF=0.5A,IR=1.0A, Irr=0.25A	35							
Maximum DC reverse current at rated DC blocking voltage per diode	IR	µA	Ta=25℃	10							
			Ta=100℃	500							



ES3A THRU ES3J

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	$47^{(1)}$							
	Between junction and lead	$R_{\theta J-L}$		$12^{(1)}$							

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

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ES3A~ES3J	F1	Approximate 0.248	3000	6000	48000	13" reel

■ Characteristics(Typical)

FIG.1: Io-Ta Curve

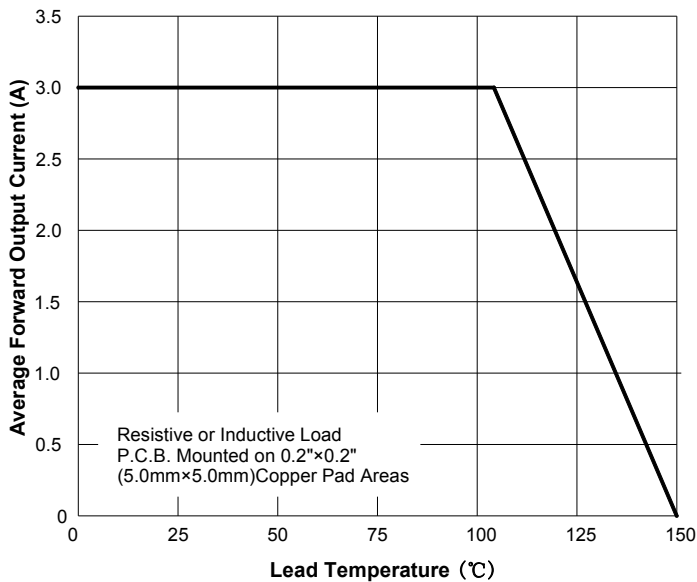


FIG.2: Surge Forward Current Capability

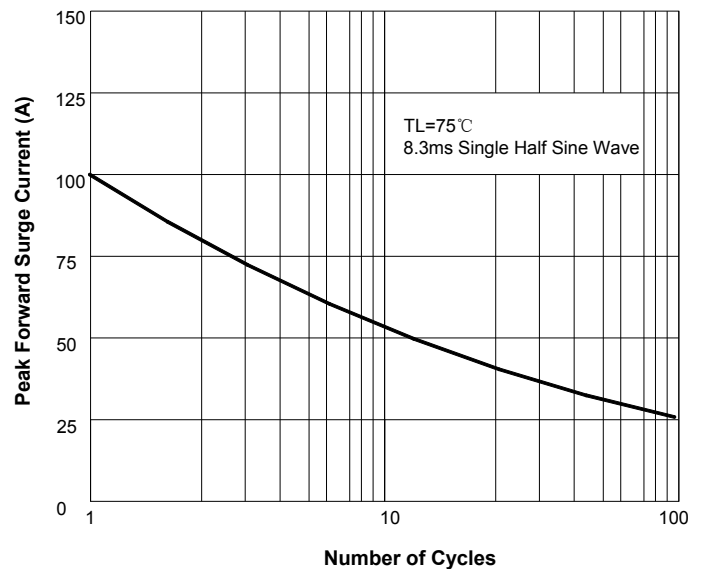


FIG.3: Forward Voltage

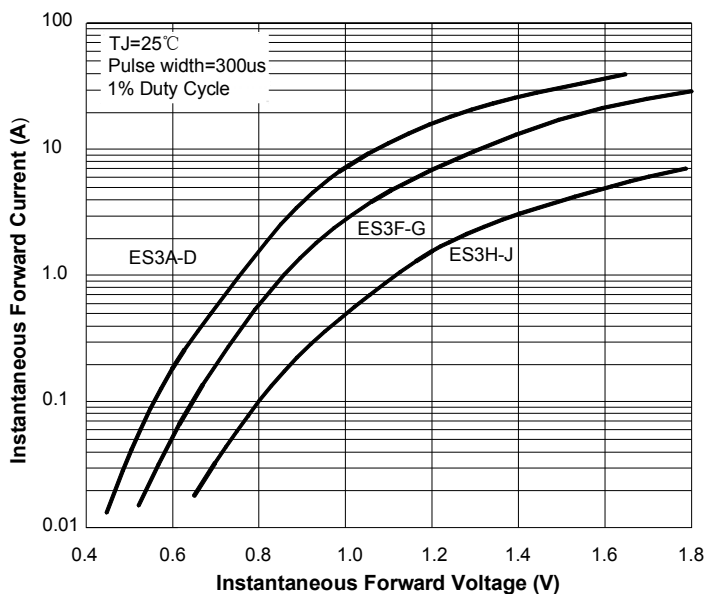
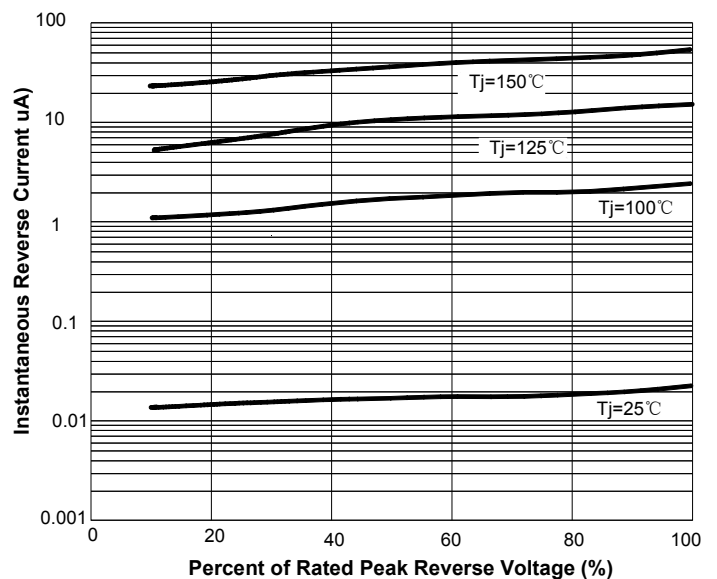


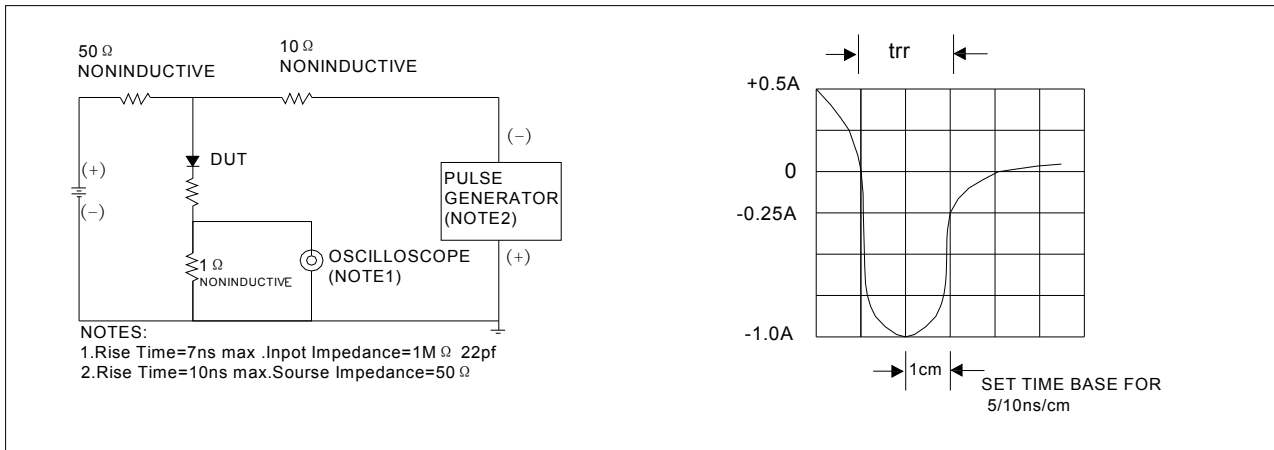
FIG.4: Typical Reverse Characteristics



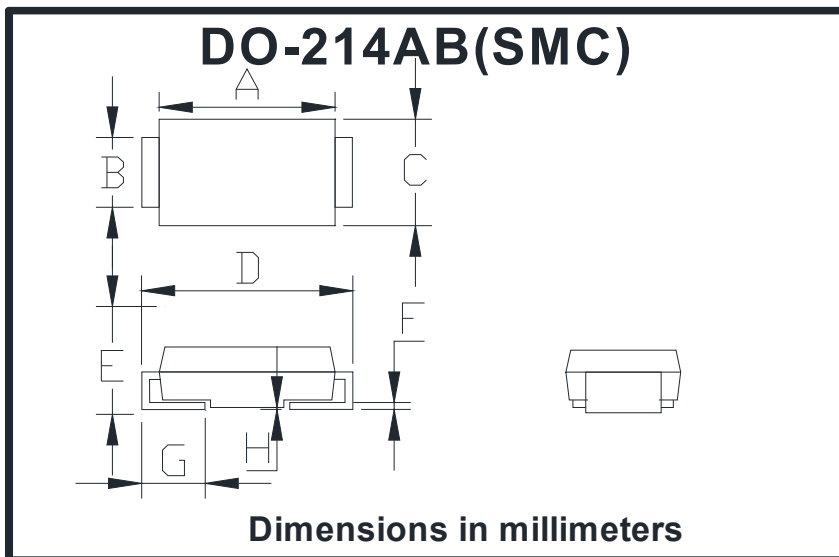


ES3A THRU ES3J

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

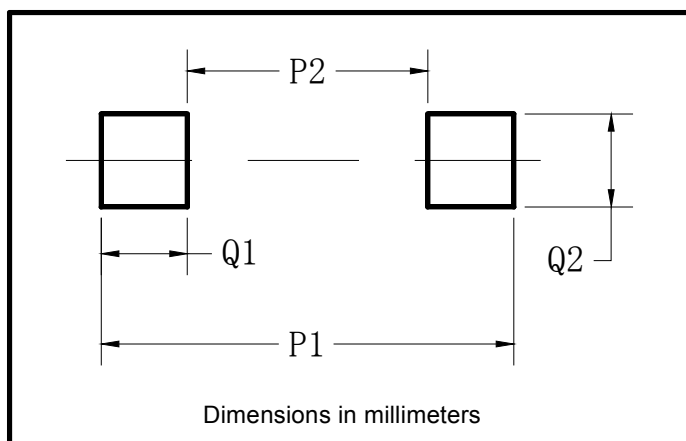


■ Outline Dimensions



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	0.10	0.20

■ Suggested pad layout



Dim	Min
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



ES3A THRU ES3J

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