

ES1A~ES1J

Surface Mount Superfast Recovery Rectifier

ROHS



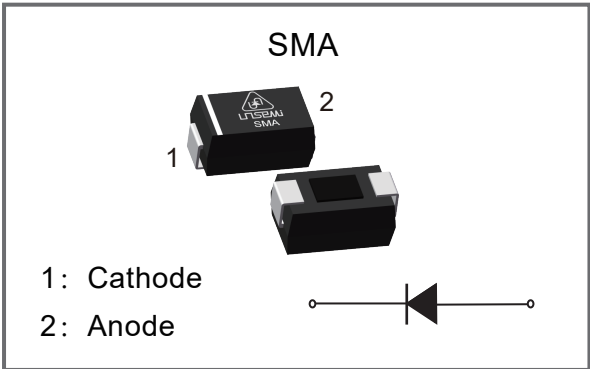
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Features

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass Passivated chip junction
- ◆ Superfast reverse recovery time
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- ◆ Case: SMA
- ◆ Quantity Per Reel : 2,000pcs
- ◆ Approx. Weight : 60mg / 0.002oz
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter		Symbol	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	Units
Maximum Repetitive Peak Reverse Voltage		VRRM	50	100	150	200	300	400	600	V
Maximum RMS voltage		VRMS	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage		VDC	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current		IF(AV)	1.0							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		IFSM	30							A
Maximum Forward Voltage at at 1A		VF	1.0				1.25		1.70	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25℃	IR	5.0							μA
	Ta=125℃	IR	100							
Typical Junction Capacitance at VR=4V, f=1MHz		Cj	15							pF
Maximum Reverse Recovery Time ⁽¹⁾		trr	35							nS
Typical Thermal Resistance ⁽²⁾		RθJA	75							℃/W
Operating and Storage Temperature Range		TJ,Tstg	-55 ~ +150							℃

Note: (1) Measured with IF=0.5A, IR=1A, Irr=0.25A.

(2) P.C.B. mounted with 1.0" X 1.0" (2.54 X 2.54cm) copper pad areas.

Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

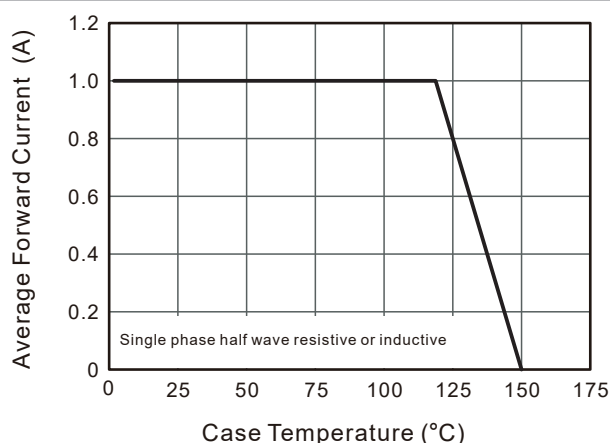


Fig. 2 Typical Reverse Characteristics

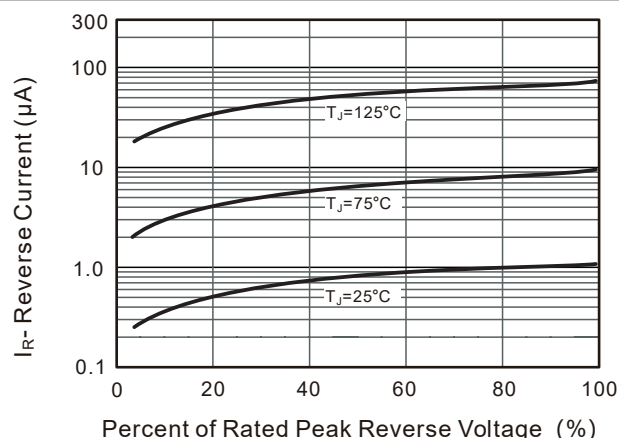


Fig.3 Typical Forward Characteristic

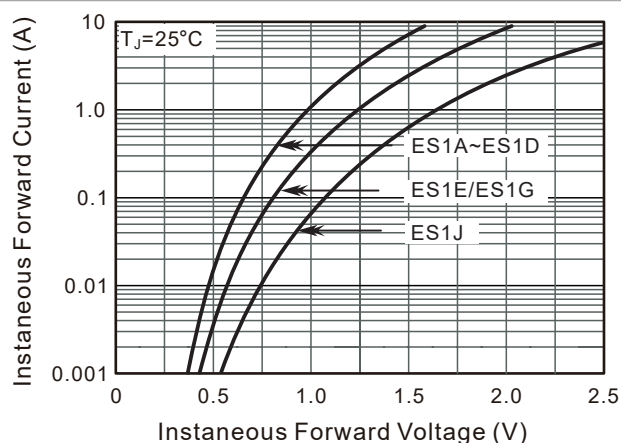


Fig. 4 Typical Junction Capacitance

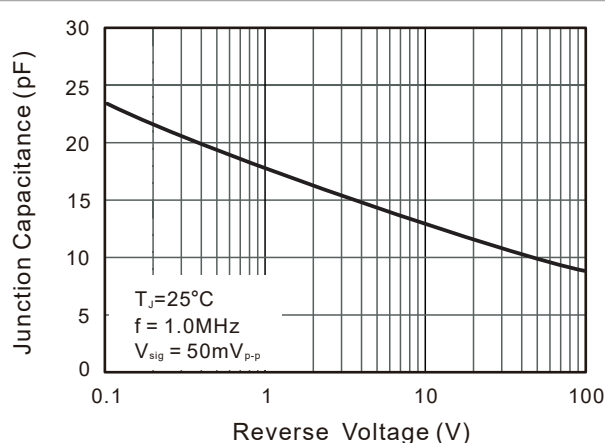
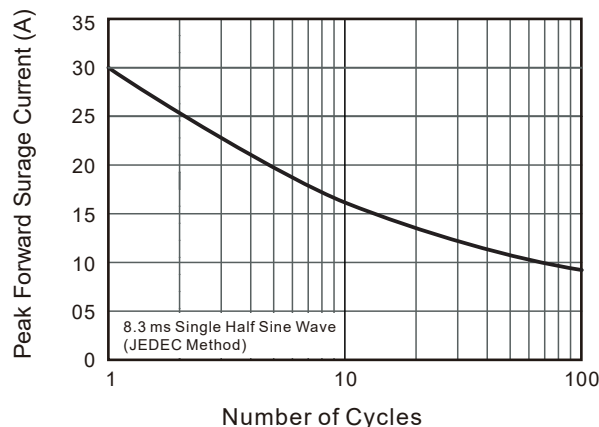
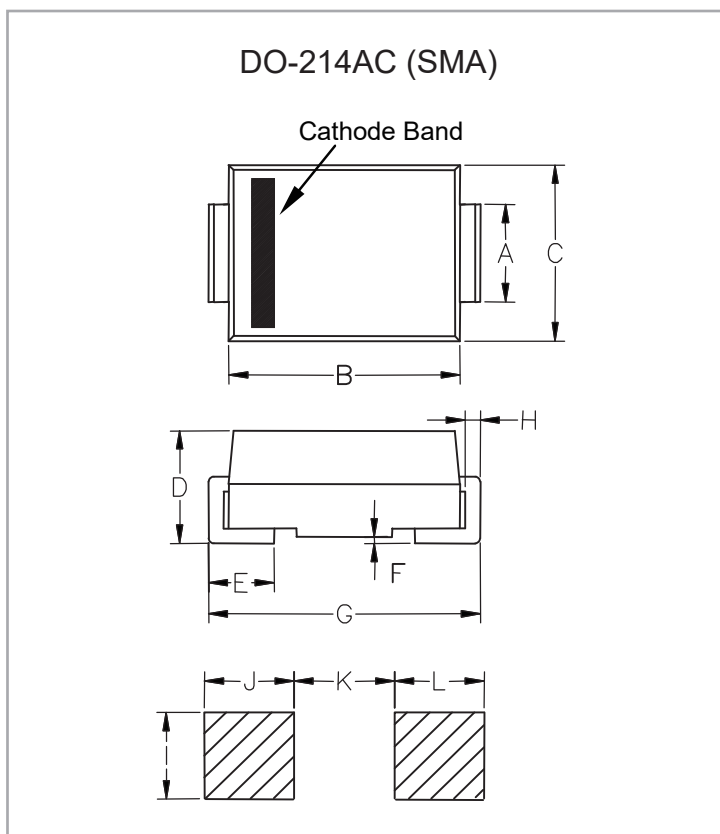


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Outline & Dimensions



Dimensions	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	0.049	0.064	1.230	1.630
B	0.162	0.179	4.10	4.550
C	0.099	0.109	2.510	2.760
D	0.077	0.089	1.960	2.260
E	0.030	0.060	0.750	1.510
F	-	0.008	-	0.203
G	0.192	0.206	4.87	5.220
H	0.006	0.012	0.152	0.305
I	0.070	-	1.800	-
J	0.082	-	2.100	-
K	-	0.090	-	2.300
L	0.082	-	2.100	-

Marking

Type Number	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J
Making	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J

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