

ES1A~ES1J

SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50 to 600 Volt **CURRENT** 1 Ampere

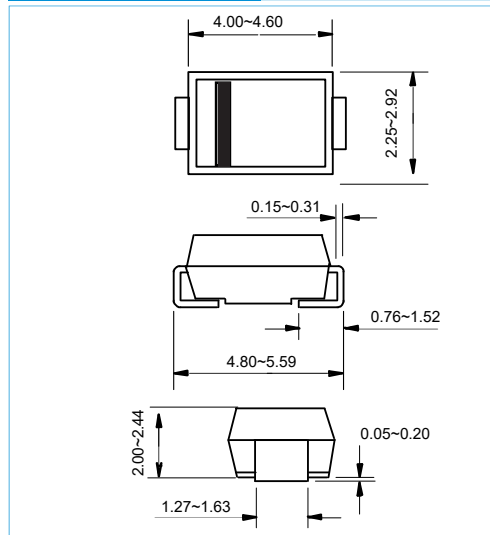
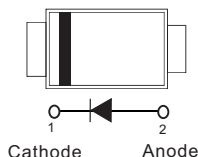
SMA / DO-214AC Unit:mm

FEATURES

- Superfast Recovery Times For High Efficiency
- Glass Passivated Junction
- Easy Pick And Place
- Moisture Sensitivity Level 1
- Lead free in compliance with EU RoHS 2.0

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	ES1A	ES1B	ES1D	ES1G	ES1J	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Current (see FIG.1)	$I_{F(AV)}$	1					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30					A
Maximum Forward Voltage at 1 A	V_F	0.95			1.25	1.70	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=100^{\circ}C$	I_R	5.0 100					uA
Maximum Reverse Recovery Time(Note 1)	t_{rr}	35					ns
Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	85 35					$^{\circ}C / W$
Typical Junction Capacitance (Note2)	C_J	15					pF
Operating Junction Temperature Range	T_J	-55 to +150					$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150					$^{\circ}C$

NOTES:

1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 volt

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RATING AND CHARACTERISTIC CURVES

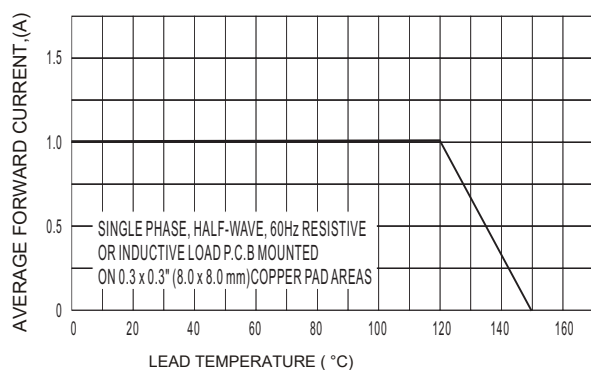


Fig. 1 Forward Current Derating Curve

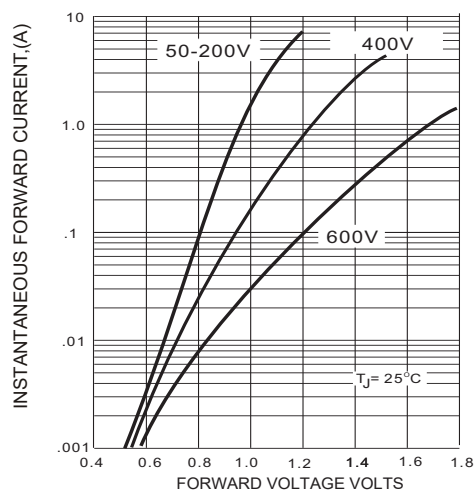


Fig. 2 Typical Forward Characteristics

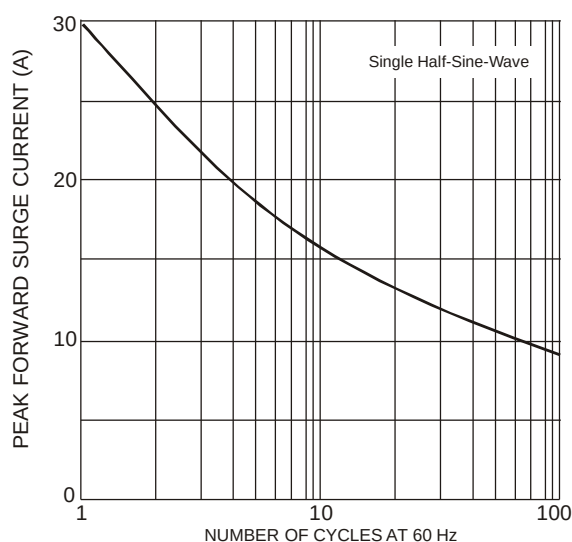


Fig. 3 Surge Current Derating Curve

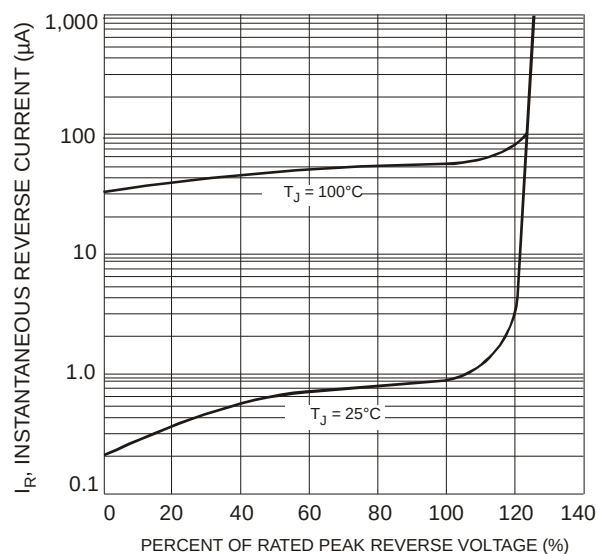


Fig. 4 Typical Reverse Characteristics

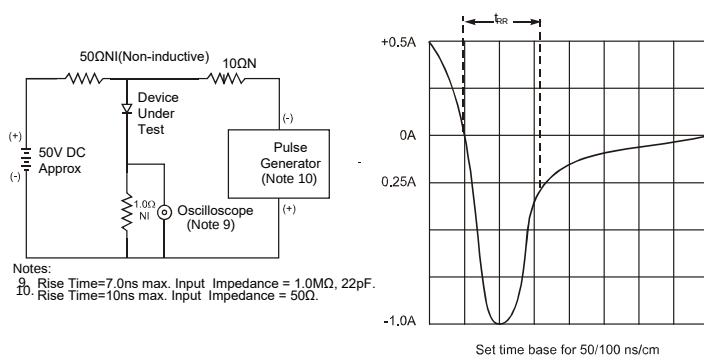


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

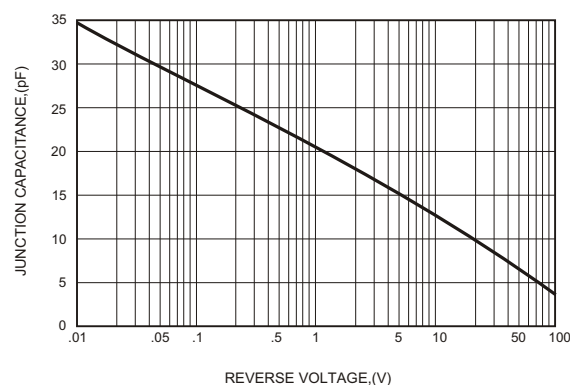


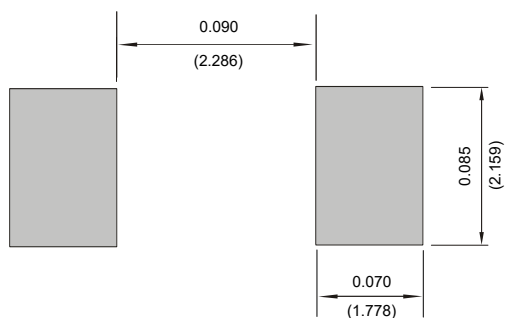
Fig. 6 Typical Junction Capacitance

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MOUNTING PAD LAYOUT

SMA / DO-214AC

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
ES1A~ES1J	SMA	13 Inch	5000