

### Super Fast Recovery Rectifiers

**(Pb)** Lead(Pb)-Free

#### Features:

- \* High current capability
- \* High surge current capability
- \* Low reverse current
- \* Component in accordance to RoHS 2002/95/EC

#### Mechanical Data:

- \* Case: SMA(DO-214AC)
- \* Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- \* Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- \* Polarity: Cathode Band
- \* Weight: 0.062 grams (approximate)

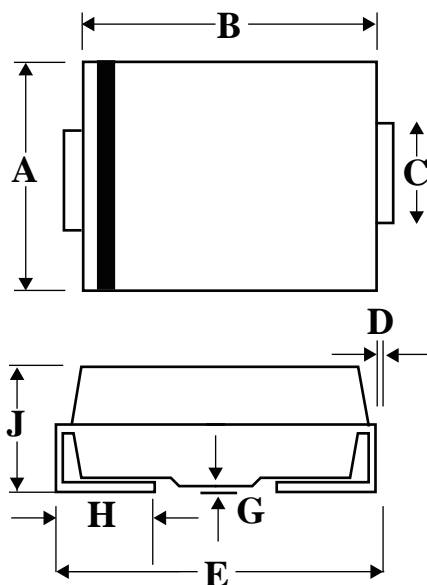
**REVERSE VOLTAGE  
50 TO 600 VOLTS  
FORWARD CURRENT  
2.0 AMPERE**



**SMA(DO-214AC)**

### SMA Outline Dimension

Unit:mm



SMA		
Dim	Min	Max
<b>A</b>	2.20	2.92
<b>B</b>	4.00	4.60
<b>C</b>	1.27	1.63
<b>D</b>	0.15	0.31
<b>E</b>	4.48	5.59
<b>G</b>	0.10	0.20
<b>H</b>	0.76	1.52
<b>J</b>	1.70	2.62

**MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Characteristics	Symbol	ES2AA	ES2BA	ES2CA	ES2DA	ES2FA	ES2GA	ES2JA	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current	$I_F$	2.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	50.0							A
Maximum Instantaneous $I_F=2A$ @ $25^{\circ}\text{C}$	$V_F$	0.98				1.30		1.75	V
Maximum DC Reverse Current @ $T_a = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_a = 100^{\circ}\text{C}$	$I_R$	5 100							$\mu\text{A}$
Maximum Reverse Recovery Time (NOTE2)	$T_{rr}$	35							nS
Typical Junction Capacitance (NOTE1)	$C_J$	40				25			pF
Typical thermal resistance	$R_{\theta JC}$	30							$^{\circ}\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150							$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^{\circ}\text{C}$

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

 2. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{RR}=0.25\text{A}$

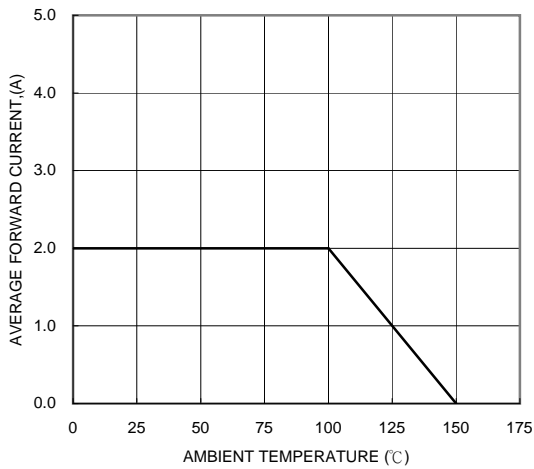


FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

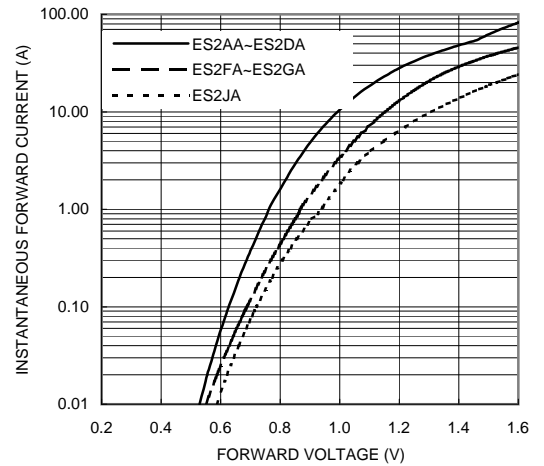


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

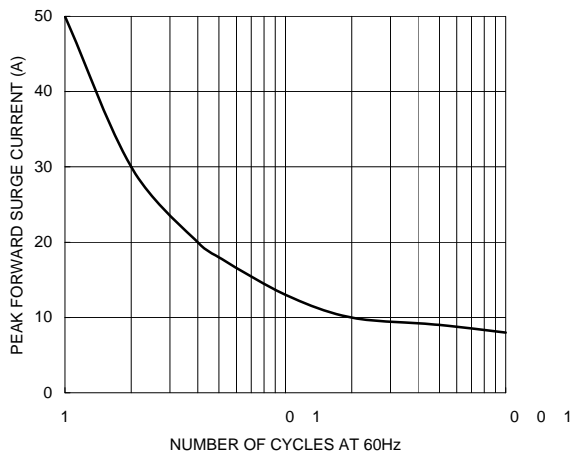


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

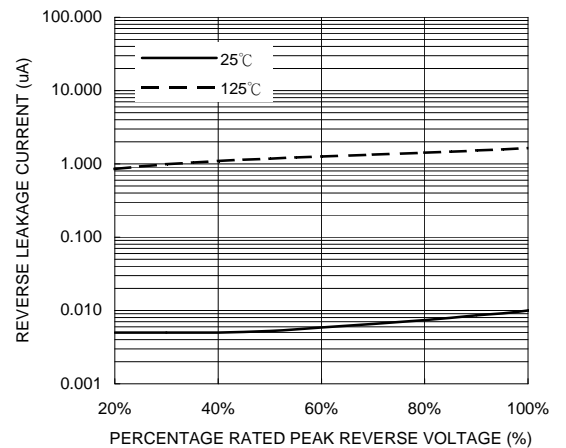


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

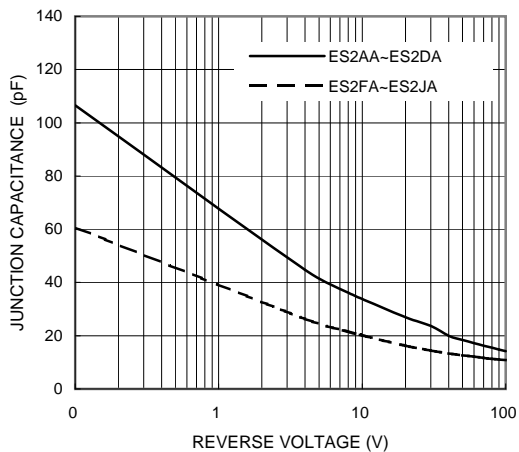


FIG. 5-TYPICAL JUNCTION CAPACITANCE