

Features

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material used carries underwriters laboratory classification 94V-0



DO-214AC (SMA)

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	ES2AA	ES2BA	ES2CA	ES2DA	ES2FA	ES2GA	ES2JA	Unit
Maximum Repetitive 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 @ T _L =110°C	I _{F(AV)}	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I _{FSM}	50							A
Typical Thermal Resistance ¹	R _{θJA}	77							°C/W
	R _{θJC}	33							
	R _{θJL}	7							
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Symbol	ES2AA	ES2BA	ES2CA	ES2DA	ES2FA	ES2GA	ES2JA	Unit
Maximum Instantaneous Forward Voltage	I _F =2.0A, DC	V _F	0.92				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _L =25°C	I _R	5							uA
	T _L =125°C		350							
Typical Reverse Recovery Time	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	t _{rr}	35							nS
Typical Junction Capacitance	4.0V 1MHz	C _J	25							pF

Notes:1. The thermal resistance from junction to ambient,case or lead,mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB.

Typical Characteristics Curves

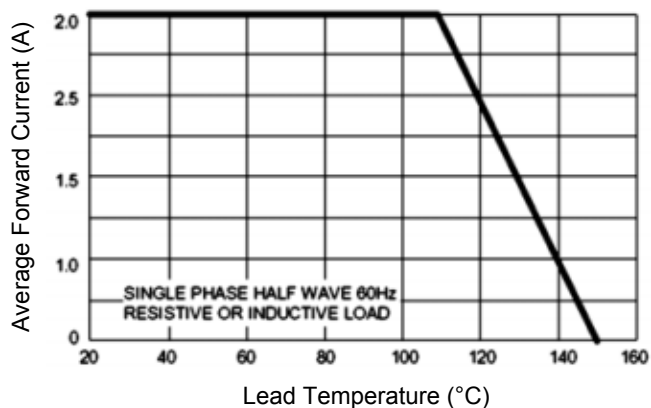


Figure 1. Forward Current Derating Curve

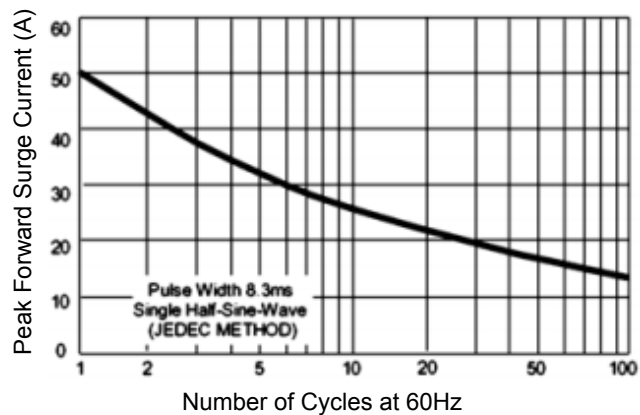


Figure 2. Maximum Non-Repetitive Surge Current

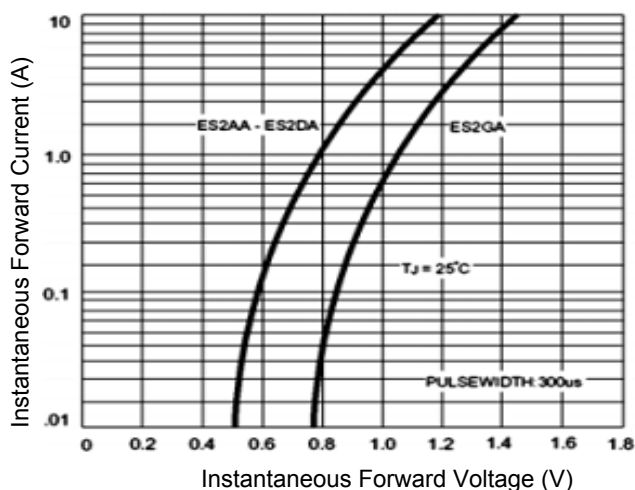


Figure 3. Typical Forward Characteristics

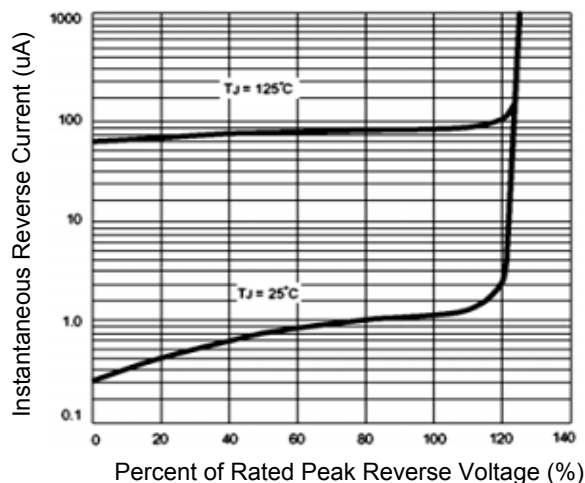


Figure 4. Typical Reverse Characteristics

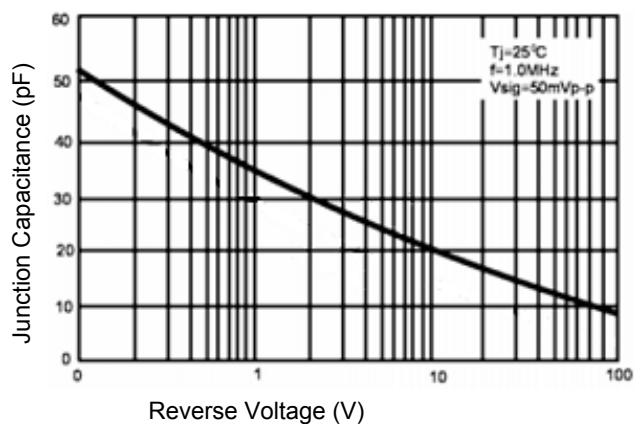
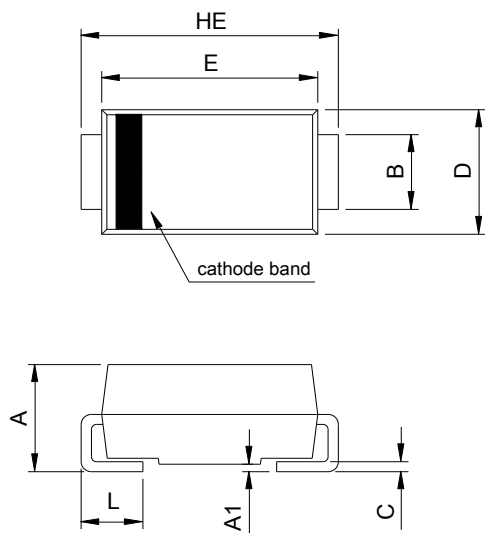


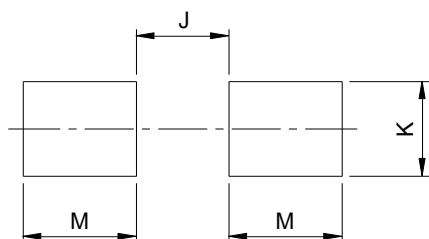
Figure 5. Typical Junction Capacitance

Package Outline Dimensions DO-214AC (SMA)



SMA (DO-214AC)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.90	2.30	0.075	0.091
A1	0.00	0.20	0.000	0.008
B	1.25	1.65	0.049	0.065
C	0.15	0.31	0.006	0.012
D	2.35	2.90	0.093	0.114
E	3.99	4.60	0.157	0.181
HE	4.80	5.30	0.189	0.209
L	0.76	1.52	0.030	0.060

Recommended Pad Layout



Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.20	-	0.087
K	1.72	-	0.068	-
M	2.00	-	0.079	-