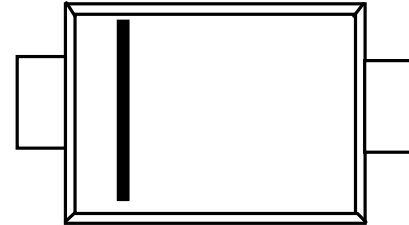


»Features

- Super fast switching time for high efficiency
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction



SMA(DO-214AC)

»General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SMA Plastic Package

» 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%

Parameters	SYMBOL	ES1A	ES1B	ES1D	ES1G	ES1J	UNIT
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 Rectified Current @T _A =55 °C	I _(AV)	1.0					A
Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	30					A
Peak Forward Voltage at 1.0A DC	V _F	0.95			1.25	1.70	V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	5.0 100					μA
Maximum Reverse Recovery Time(Note 1)	T _{RR}	35					nS
Tyical Junction Capacitance (Note2)	C _J	30			25		pF
Tyical Thermal Resistance (Note3)	R _{θJA}	40					°C/W
Operating Temperature Range	T _J	-55 to +150					°C
Storage Temperature Range	T _{STG}	-55 to +150					°C

NOTES: 1.Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

»Typical Performance Characteristics ((T_J = 25 °C, unless otherwise noted))

FIG. 1 – FORWARD CURRENT DERATING CURVE

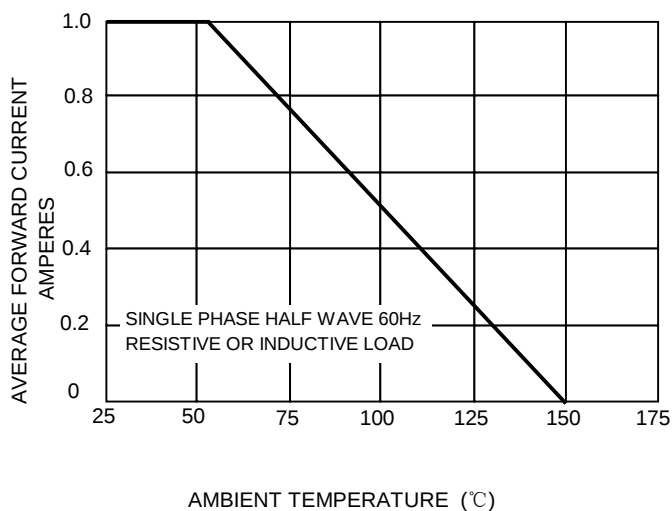


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

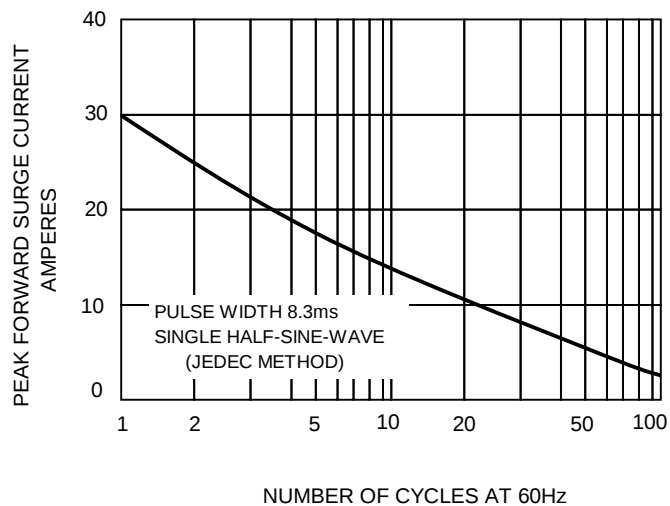


FIG.3 – TYPICAL JUNCTION CAPACITANCE

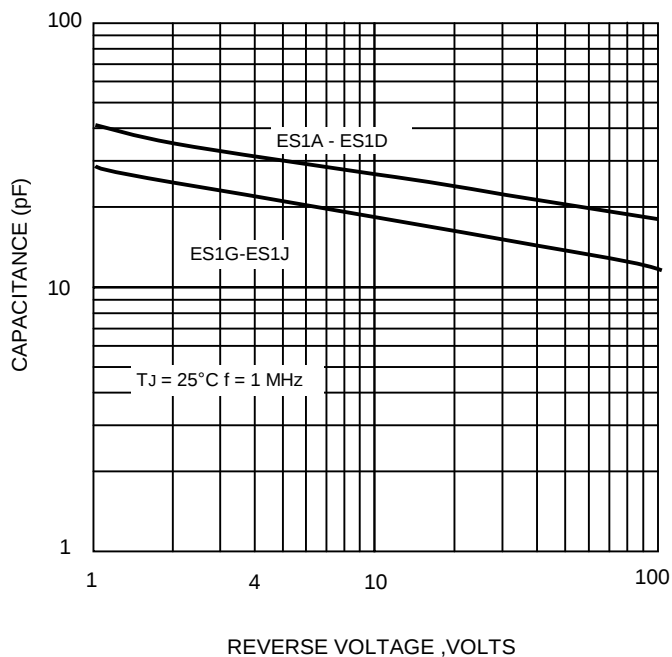
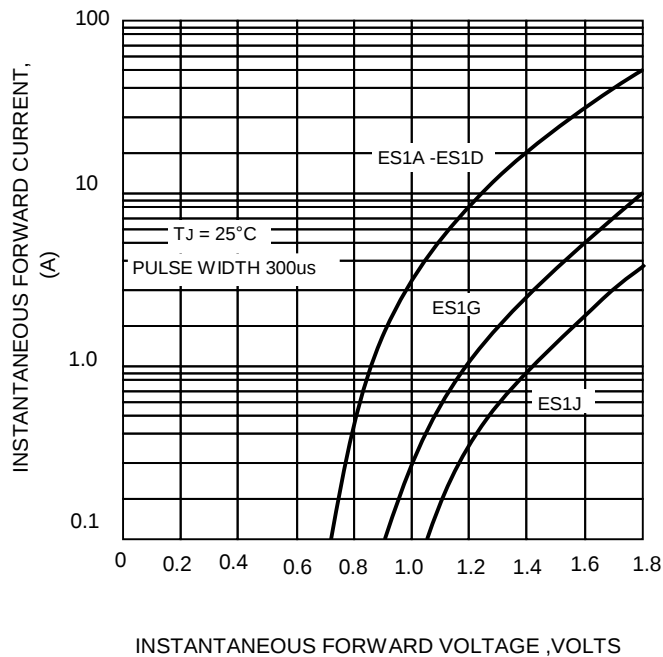
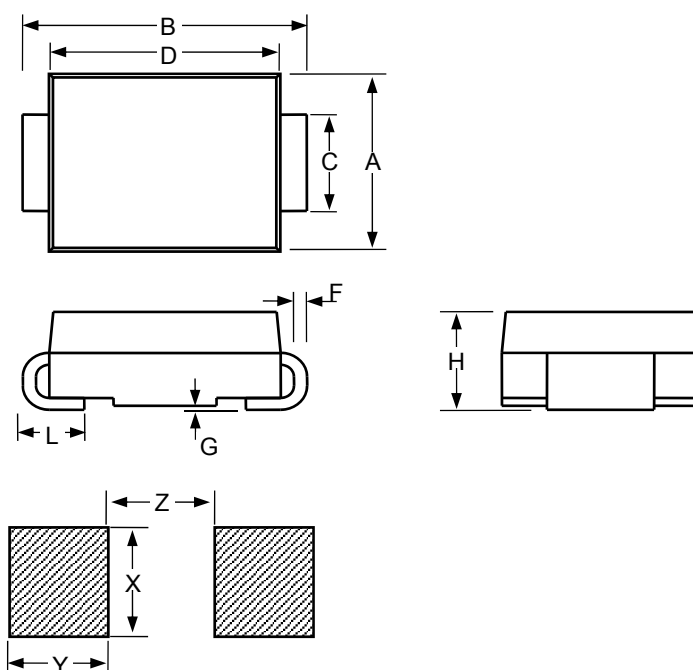


FIG.4-TYPICAL FORWARD CHARACTERISTICS



»Package Information

SMA



SMA						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.098		0.114	2.5		2.9
B	0.194		0.223	4.93		5.66
C	0.051		0.067	1.3		1.7
D	0.157		0.181	3.99		4.6
F	0.006		0.012	0.152		0.305
G	-		0.008	-		0.203
H	0.078		0.095	1.98		2.42
L	0.03		0.06	0.76		1.52
X		0.085			2.16	
Y		0.07			1.78	
Z		0.079			2	

»Ordering information

Part Number	ES1A	ES1B	ES1D	ES1G	ES1J
Marking	ES1A	ES1B	ES1D	ES1G	ES1J
Base qty	5K	5K	5K	5K	5K