

## Maximum Ratings @TA = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

Characteristic	Symbol	ES2A/A	ES2B/A	ES2C/A	ES2D/A	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage (Note 4)	$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	50	100	150	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	105	140	V
Average Rectified Output Current @ T <sub>T</sub> = 110°C	Ю		2	.0		Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>		5	0		Α

## **Thermal Characteristics**

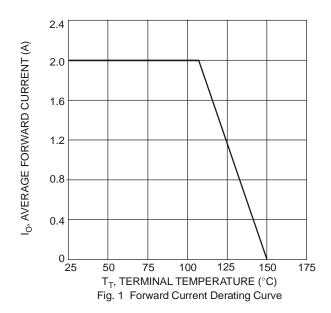
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal (Note 5)	$R_{\theta JT}$	20	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

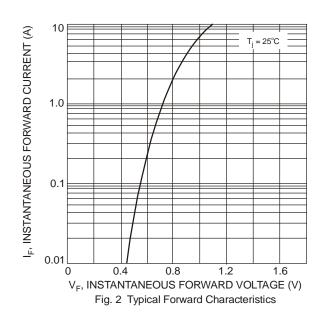
## Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic		Symbol	Value	Unit
Forward Voltage	@ I <sub>F</sub> = 2.0A	$V_{FM}$	0.92	V
Peak Reverse Current	@ T <sub>A</sub> = 25°C	1	5.0	
at Rated DC Blocking Voltage (Note 4)	@ $T_A = 125^{\circ}C$	IRM	350	μА
Typical Total Capacitance (Note 6)		C <sub>T</sub>	25	pF
Reverse Recovery Time (Note 7)		t <sub>rr</sub>	25	ns

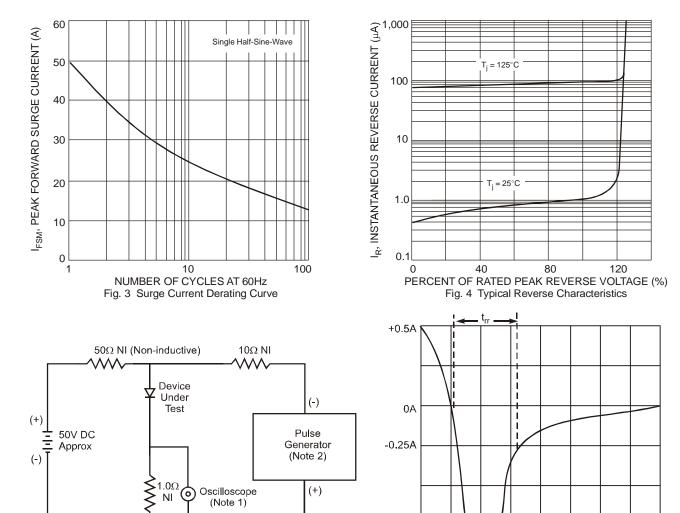
Notes:

- 4. Short duration pulse test used to minimize self-heating effect.
- F. Silort duration pulse test used to fill filling self-reading effect. So Unit mounted on PC board with 5.0 mm<sup>2</sup> (0.013 mm thick) copper pads as heat sink. 6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC. 7. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr} = 0.25A$ . See Figure 5.







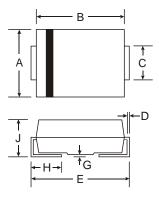


- Notes:
- 1. Rise Time = 7.0ns max. Input Impedance =  $1.0M\Omega$ , 22pF.
- 2. Rise Time = 10ns max. Input Impedance =  $50\Omega$ .

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

-1.0A

# **Package Outline Dimensions**



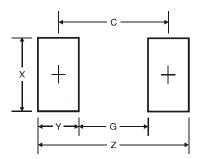
	SMA			
Dim	Min	Max		
Α	2.29	2.92		
В	4.00	4.60		
С	1.27	1.63		
D	0.15	0.31		
Е	4.80	5.59		
G	0.05	0.20		
Н	0.76	1.52		
J	2.01	2.30		
All Dim	All Dimensions in mm			

SMB				
Dim	Min	Max		
Α	3.30	3.94		
В	4.06	4.57		
С	1.96	2.21		
D	0.15	0.31		
Е	5.00	5.59		
G	0.05	0.20		
Н	0.76	1.52		
J	2.00	2.50		
All Dimensions in mm				

Set time base for 50/100 ns/cm



## **Suggested Pad Layout**



SMA Dimensions	Value (in mm)
Z	6.5
G	1.5
Х	1.7
Y	2.5
С	4.0

SMB Dimensions	Value (in mm)
Z	6.7
G	1.8
Х	2.3
Υ	2.5
С	4.3

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