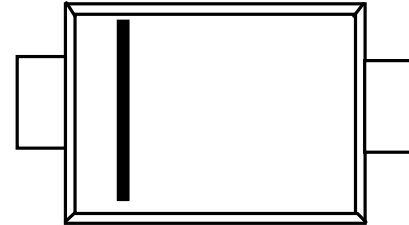


»Features

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



SMB(DO-214AA)

»General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SMB 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%

		SYMBOLS	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage		V _{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at T _L =100℃		I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)		I _{FSM}	50							Amps
Maximum Instantaneous Forward Voltage @ 2.0A		V _F	0.95			1.25	1.7			Volts
Maximum DC Reverse Current at rated DC Blocking voltage per element	T _A =25℃	I _R	5.0							μA
	T _A =125℃		200							
Maximum Reverse Recovery Time Test conditions I _F =0.5A, I _R =1.0A, I _{RR} =0.25A		t _{rr}	35							nS
Typical Junstion Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)		C _J	25			208				pF
Typical Thermal Resistance (Note 1)		R _{θJA}	75							℃/W
		R _{θJL}	17							
Operating Junction Temperature Range		T _J	(-55 to +150)							℃
Storage Tempetature Rang		T _{STG}	(-55 to +150)							℃

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-TYPICAL FORWARD CURRENT
DERATING CURVE

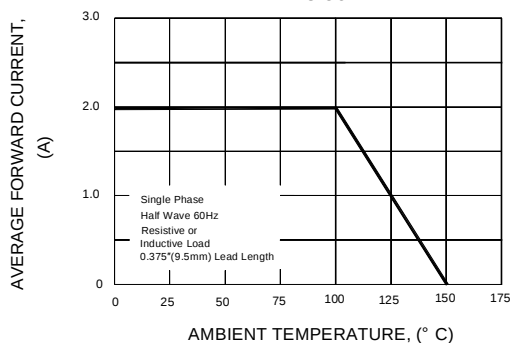


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

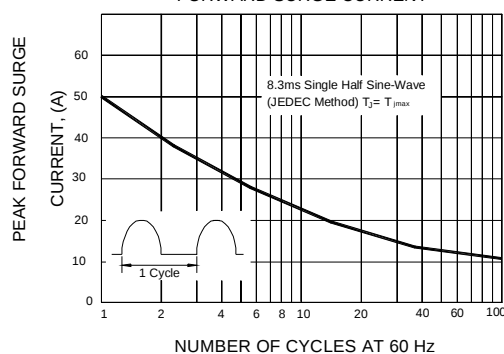


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

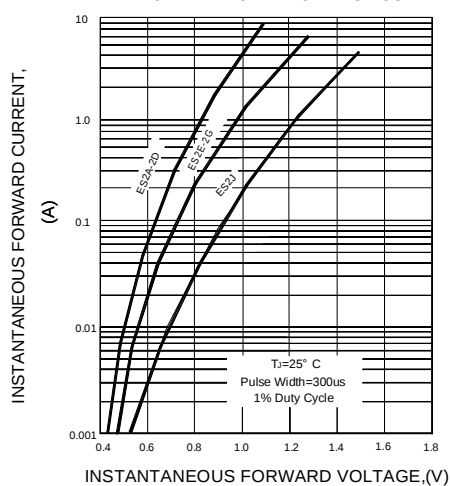


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

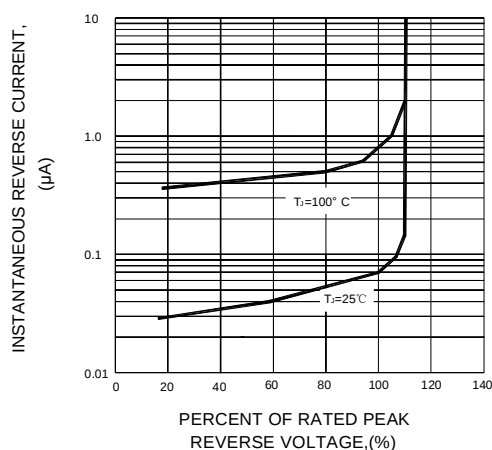


FIG.5-TYPICAL JUNCTION CAPACITANCE

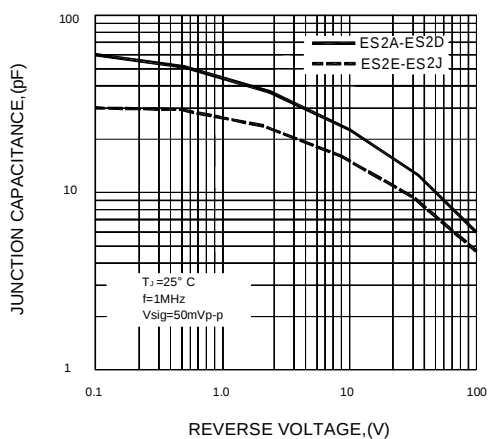
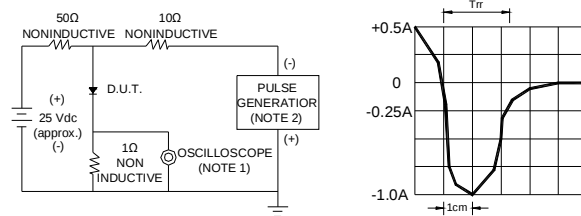


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC

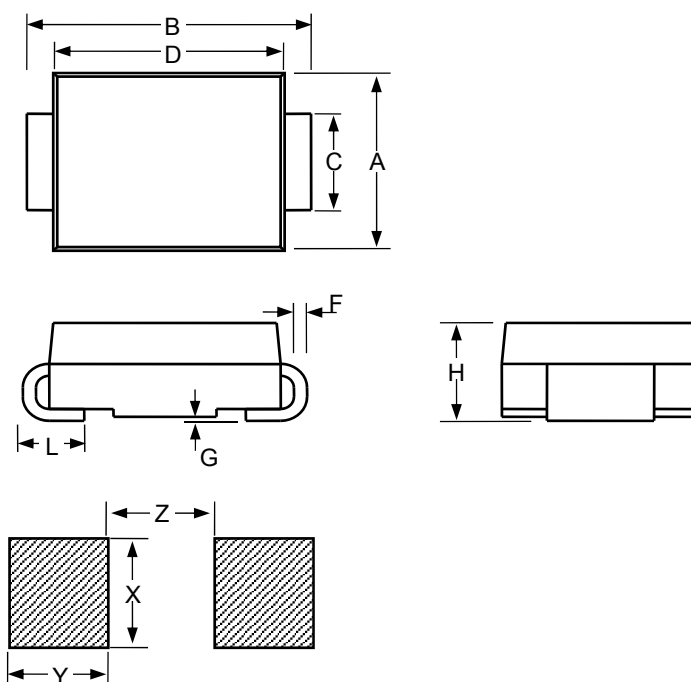


NOTES : 1. Rise Time = 7ns max. Input Impedance = 1 megohm, 22pF
2. Rise time = 10ns max. Source Impedance = 50 ohms

SET TIME BASE FOR 50/100ns/cm

»Package Information

SMB



SMB						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.134	0.144	0.155	3.4	3.67	3.94
B	0.201	0.213	0.224	5.1	5.4	5.7
C	0.067	0.079	0.091	1.7	2	2.3
D	0.169		0.185	4.3		4.7
F	0.006		0.012	0.152		0.305
G	-		0.008	-		0.203
H	0.085	0.091	0.096	2.15	2.3	2.45
L	0.03		0.06	0.76		1.52
X		0.11			2.8	
Y		0.079			2	
Z		0.079			2	

»Ordering information

Part Number	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J
Marking	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J
Base qty	3K	3K	3K	3K	3K	3K	3K