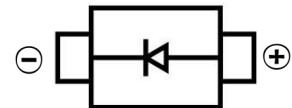


GENERAL PURPOSE RECTIFIER DIODE**FEATURES**

- Glass passivated junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Surface Mount device

**SMB****MECHANICAL DATA**

- Case: SMB(DO-214AA)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.088 grams (approximate)

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

Parameter	Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
DC Blocking Reverse Voltage	V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current	I_F	3							A
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	100							A
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	25							$^{\circ}\text{C/W}$
Junction Temperature	T_J	150							$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-55 \sim +150$							$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F		1.0	1.1	V	$I_F=3\text{A}$
Reverse current	I_R			10	μA	$V_R=V_{RRM}$
Diode capacitance	C_D		30		pF	$V_R=4\text{V}, f=1\text{MHz}$

GENERAL PURPOSE RECTIFIER DIODE

Typical Characteristics

Fig.1 Forward Current Derating Curve

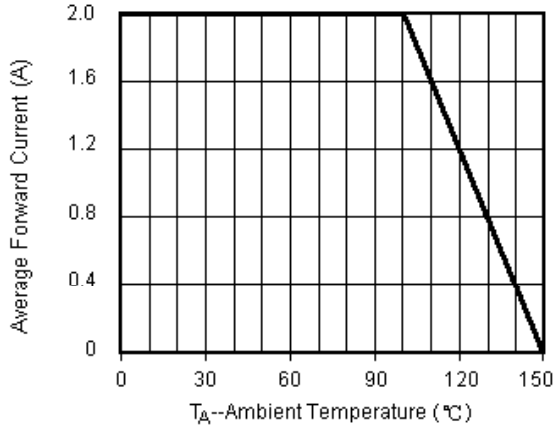


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

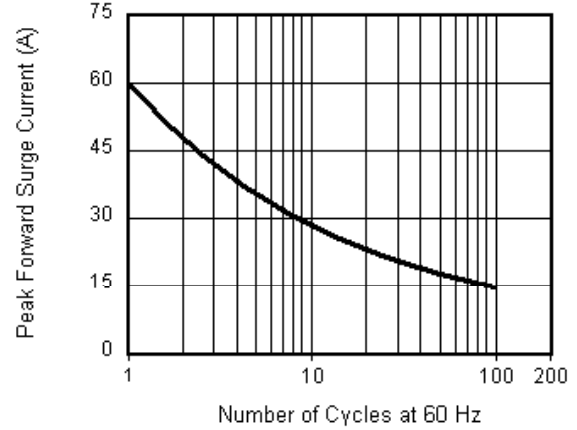


Fig.3 Typical Instantaneous Forward Characteristics

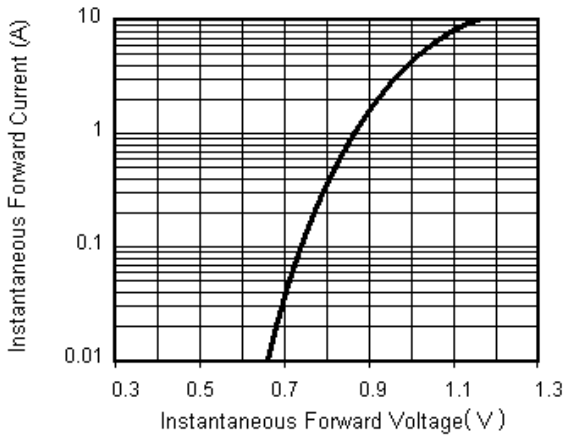


Fig.4 Typical Reverse Leakage Characteristics

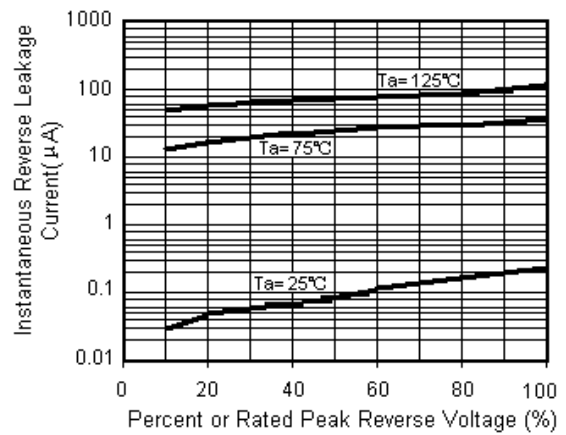


Fig.5 Typical Junction Capacitance

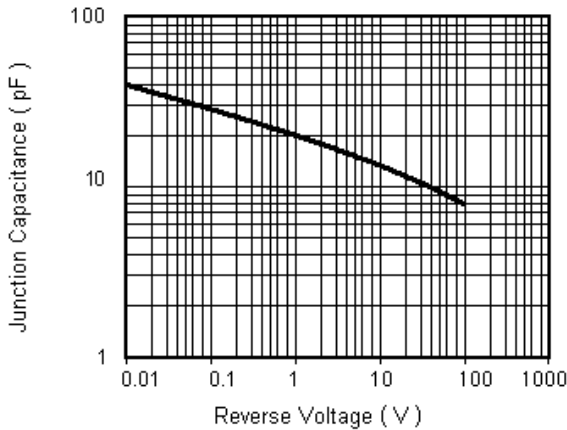
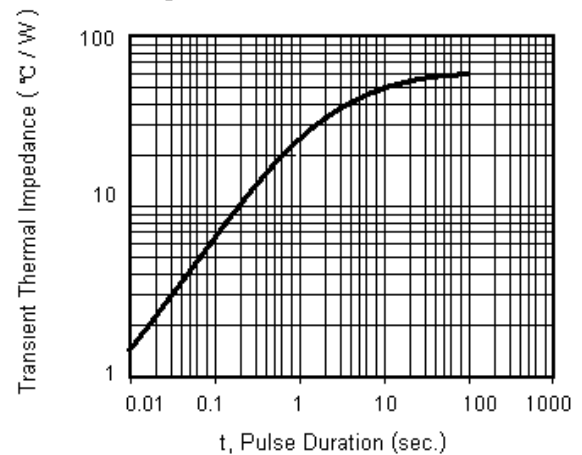
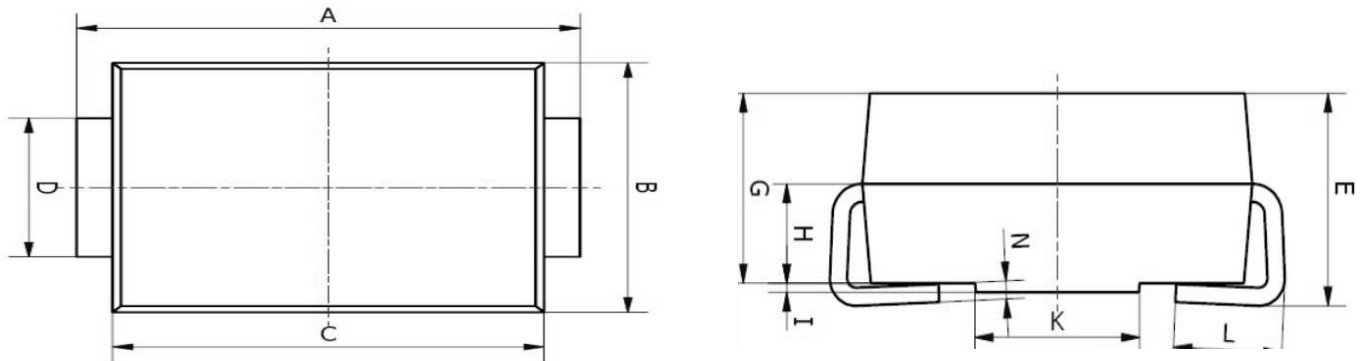


Fig.6 Transient Thermal Impedance



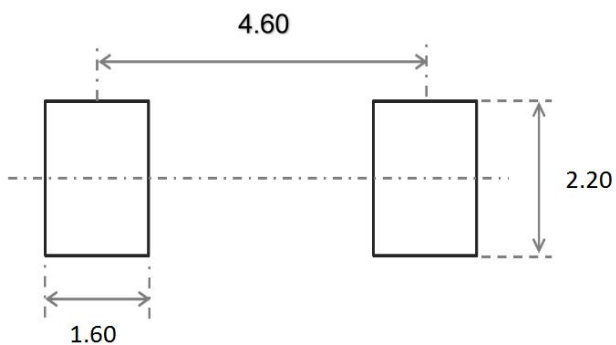
GENERAL PURPOSE RECTIFIER DIODE

SMB Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	5.00	5.45	0.197	0.215
B	3.20	4.00	0.126	0.157
C	4.30	4.70	0.169	0.185
D	1.80	2.20	0.071	0.087
E	2.20	2.50	0.087	0.098
G	1.90	2.30	0.075	0.090
H	0.95	1.25	0.037	0.049
I	0.05	0.15	0.002	0.006
K	1.70	2.10	0.067	0.083
L	0.90	1.60	0.035	0.063
N	0.10	0.30	0.004	0.012

SMB Suggested Pad Layout



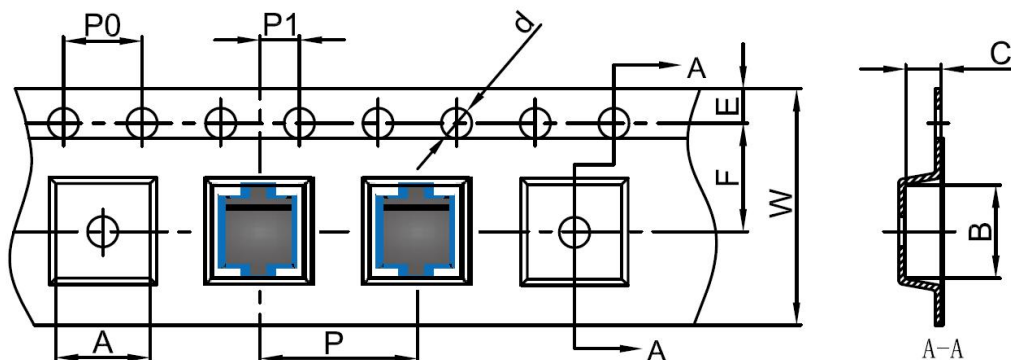
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

GENERAL PURPOSE RECTIFIER DIODE

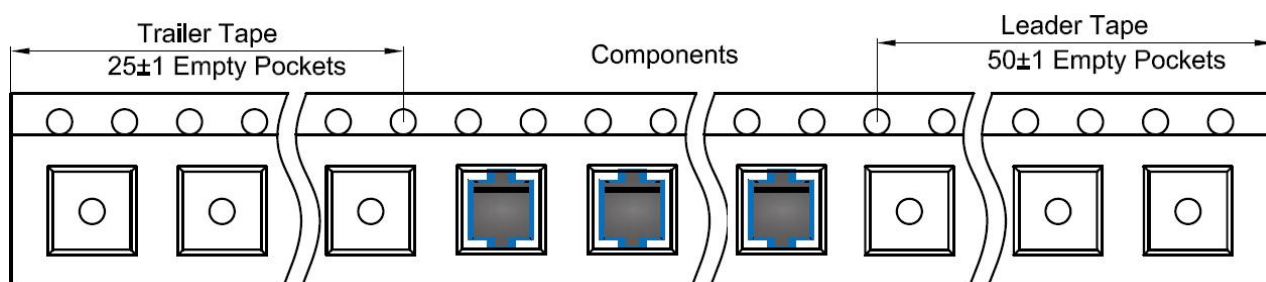
SMB Tape and Reel

SMB Embossed Carrier Tape

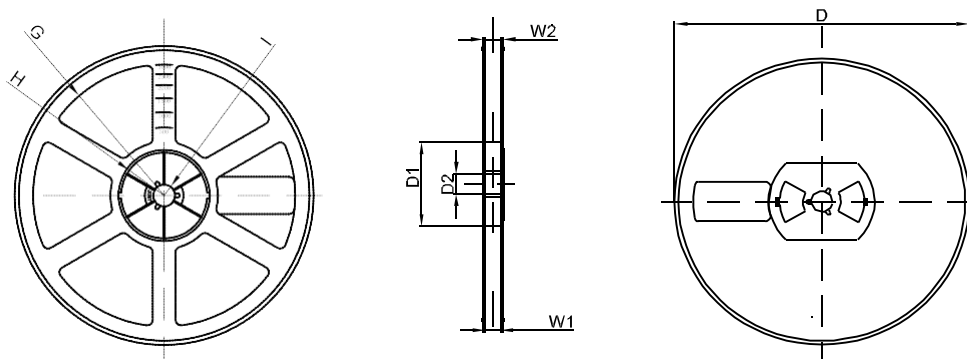


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMB	4.10	5.50	2.58	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SMB Tape Leader and Trailer



SMB Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
13" DIA	Ø330	75.0	13.00	R165	R37.50	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1