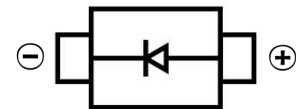


SCHOTTKY BARRIER DIODE
FEATURES

- Small Surface Mount device
- Low forward voltage drop
- High surge current capability
- Epitaxial construction


SMB

MECHANICAL DATA

- Case: SMB(DO-214AA)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.088 grams (approximate)

MAXIMUM RATINGS AND CHARACTERISTICS(T_A = 25°C unless otherwise noted)

Parameter	Symbol	SK32B	SK33B	SK34B	SK35B	SK36B	SK39B	SK310B	Unit
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	V
RMS Reverse Voltage	V _{RMS}	14	21	28	35	42	63	70	V
DC Reverse Voltage	V _R	20	30	40	50	60	90	100	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I _{FSM}	100					150		A
Maximum Average Forward Rectified Current	I _F	3.0							A
Thermal Resistance From Junction To Ambient(note2)	R _{θJL}	17							°C/W
	R _{θJA}	75							
Junction Temperature	T _J	-55 ~+125			-55 ~+150				°C
Storage Temperature	T _{STG}	-55 ~+150							°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	SK32B	SK33B	SK34B	SK35B	SK36B	SK39B	SK310B	Unit	Conditions
Forward voltage	V _F	0.50			0.75		0.85		V	I _F =3A
Reverse current T _A =25°C	I _R	0.50					0.60		mA	V=V _R , Note1
Reverse current T _A =100°C	I _R	20.0			10.0		20.0		mA	
Junction capacitance	C _J	45							pF	V _R =4V, f=1MHZ

- Notes: 1. Pulse Test with PW=300 μs, 1% Duty Cycle
 2. Measured on P.C.Board with 0.4 x 0.4”(10 x 10mm) Copper Pad Areas.

SCHOTTKY BARRIER DIODE

Typical Characteristics

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

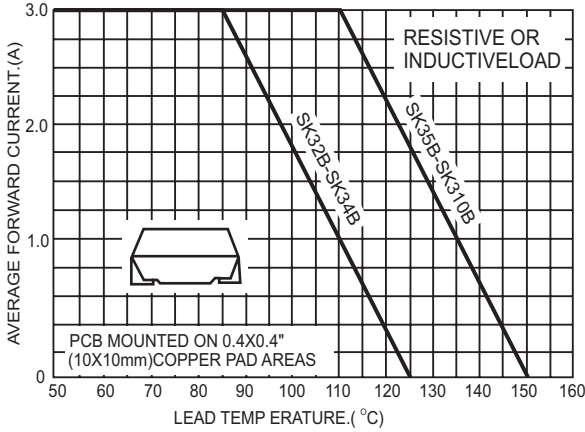


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

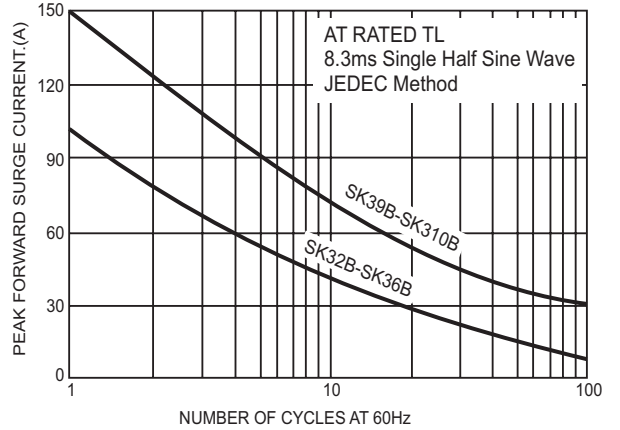


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

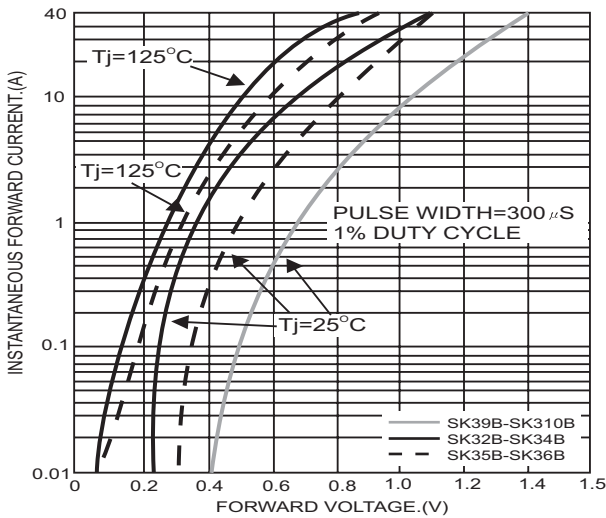


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

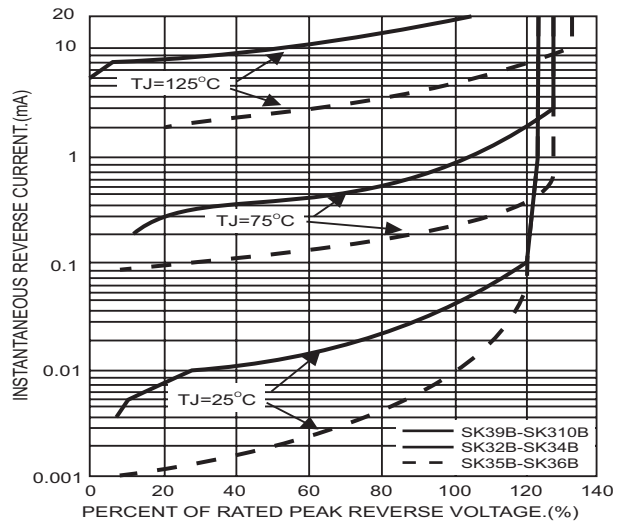


FIG. 5- TYPICAL JUNCTION CAPACITANCE

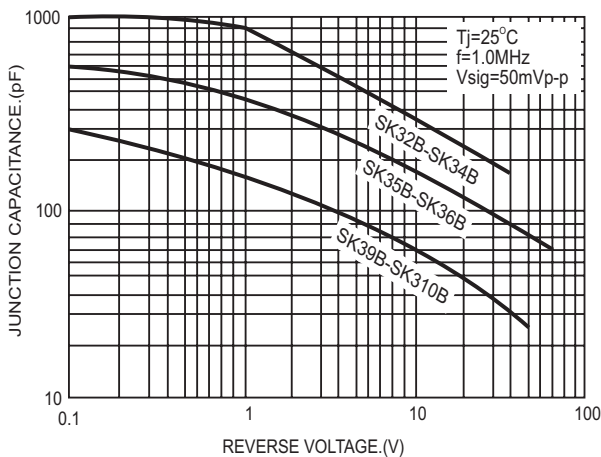
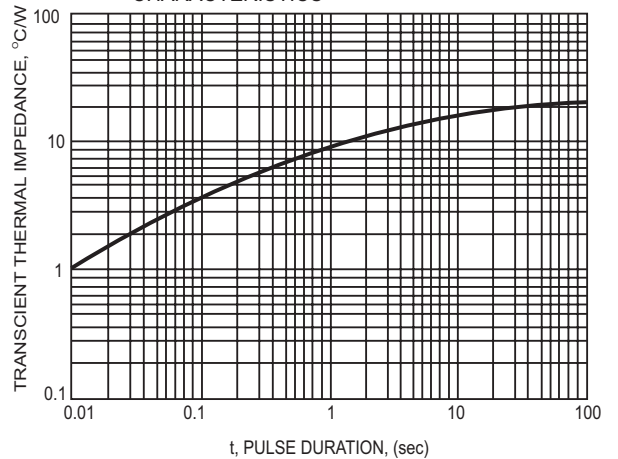
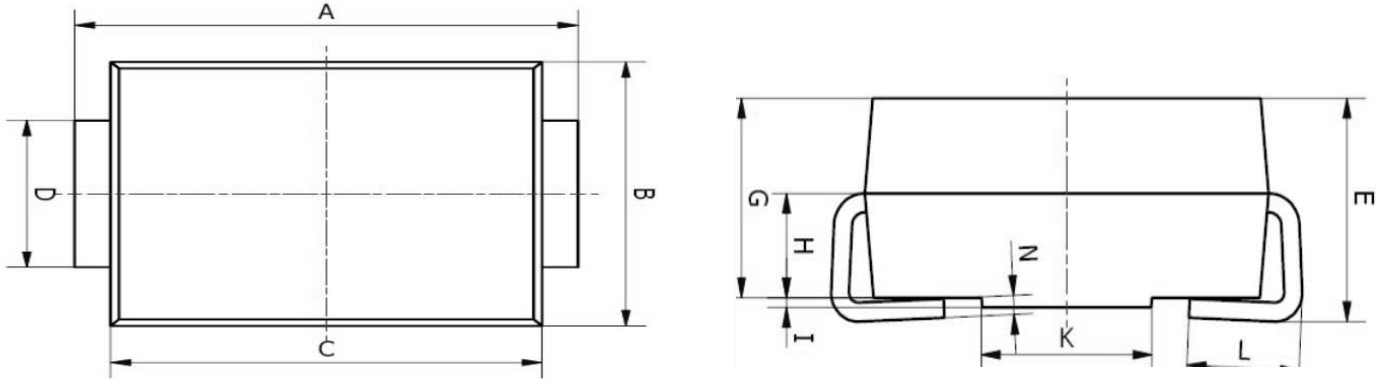
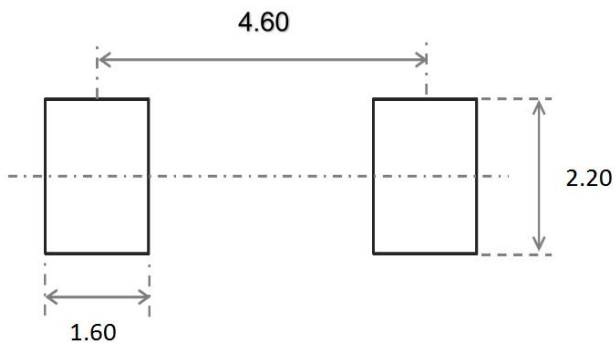


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

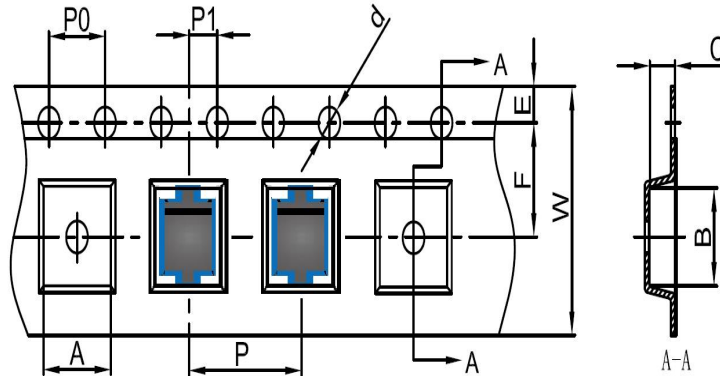


SCHOTTKY BARRIER DIODE
SMB Package Outline Dimensions


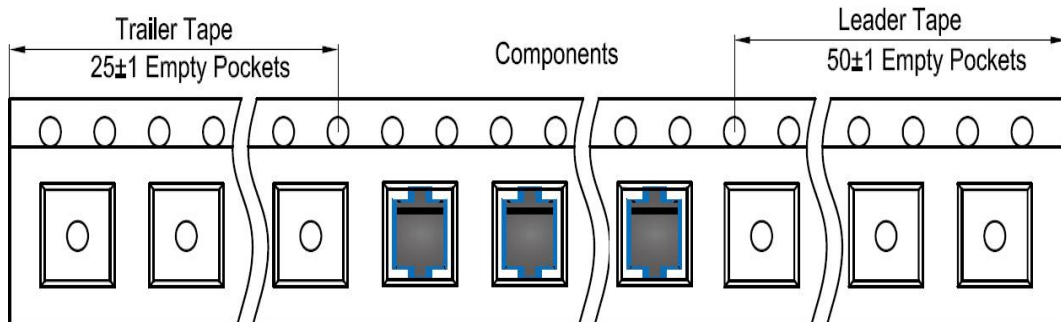
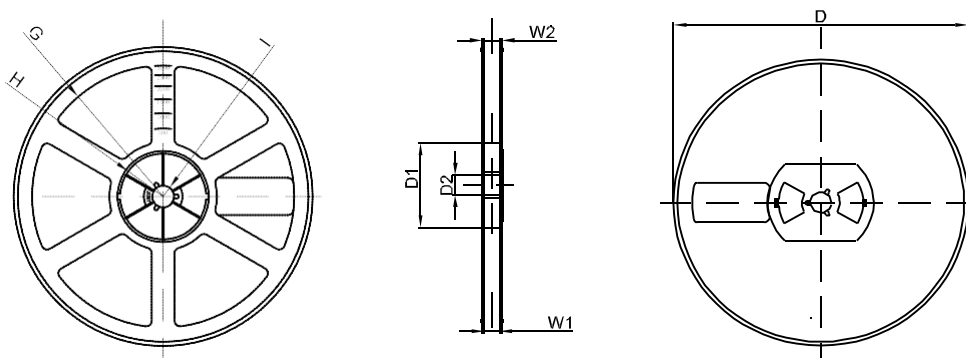
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	5.00	5.45	0.197	0.215
B	3.20	4.00	0.126	0.157
C	4.30	4.70	0.169	0.185
D	1.80	2.20	0.071	0.087
E	2.20	2.50	0.087	0.098
G	1.90	2.30	0.075	0.090
H	0.95	1.25	0.037	0.049
I	0.05	0.15	0.002	0.006
K	1.70	2.10	0.067	0.083
L	0.90	1.60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

SCHOTTKY BARRIER 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