

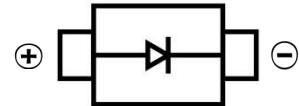
SCHOTTKY BARRIER DIODE

FEATURES

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



SMA



MECHANICAL DATA

- Case: SMA(DO-214AC)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.065 grams (approximate)

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

Parameter	Symbol	SK32A	SK33A	SK34A	SK35A	SK36A	SK39A	SK310A	Unit
Marking		SK32	SK33	SK34	SK35	SK36	SK39	SK310	
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 @ $t = 8.3 \text{ ms}$	I_{FSM}	100					150		A
Maximum Average Forward Rectified Current	I_F	3.0							A
Thermal Resistance From Junction To Ambient(note2)	$R_{\theta JL}$	17							°C/W
	$R_{\theta JA}$	75							
Junction Temperature	T_J	-55 ~+125			-55 ~+150				°C
Storage Temperature	T_{STG}	-55 ~+150							°C

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

Parameter	Symbol	SK32A	SK33A	SK34A	SK35A	SK36A	SK39A	SK310A	Unit	Conditions
Forward voltage	V_F	0.50			0.75		0.85		V	$I_F=3A$
Reverse current $T_A=25^\circ\text{C}$	I_R	0.50					0.60		mA	$V=V_R, \text{Note 1}$
Reverse current $T_A=100^\circ\text{C}$	I_R	20.0			10.0		20.0		mA	
Junction capacitance	C_J	45							pF	$V_R=4V, f=1\text{MHZ}$

- Notes: 1. Pulse Test with $PW=300 \mu\text{s}$, 1% Duty Cycle
 2. Measured on P.C.Board with $0.4 \times 0.4''$ (10 x 10mm) Copper Pad Areas.

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Typical Characteristics

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

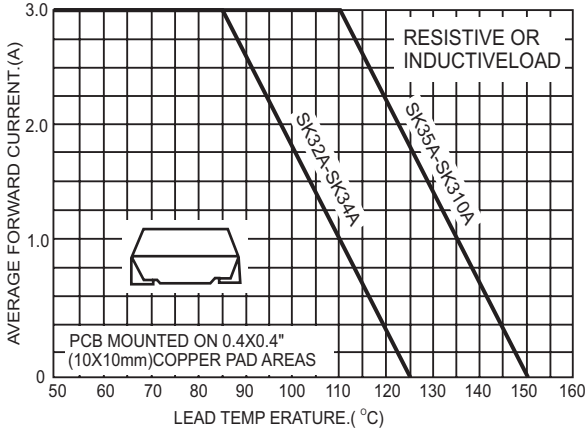


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

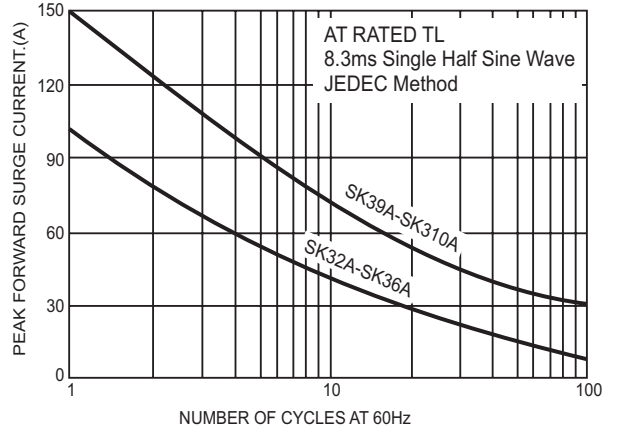


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

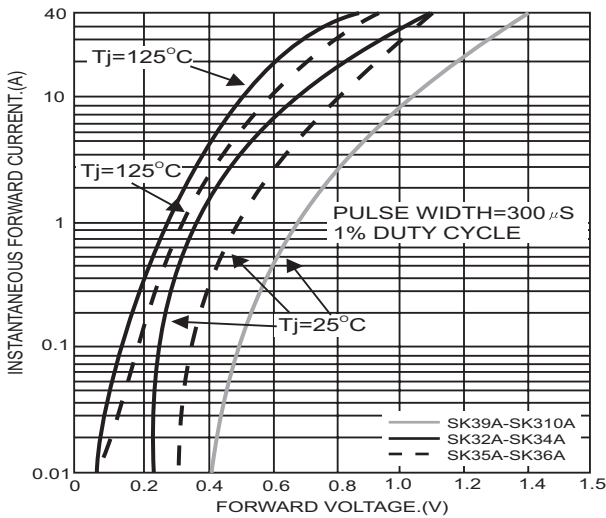


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

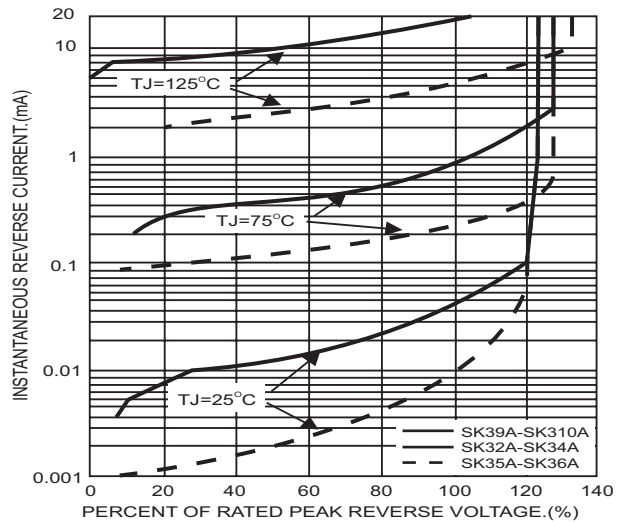


FIG. 5- TYPICAL JUNCTION CAPACITANCE

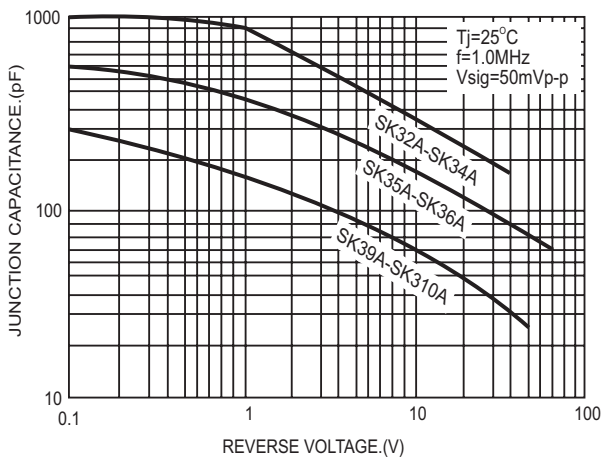
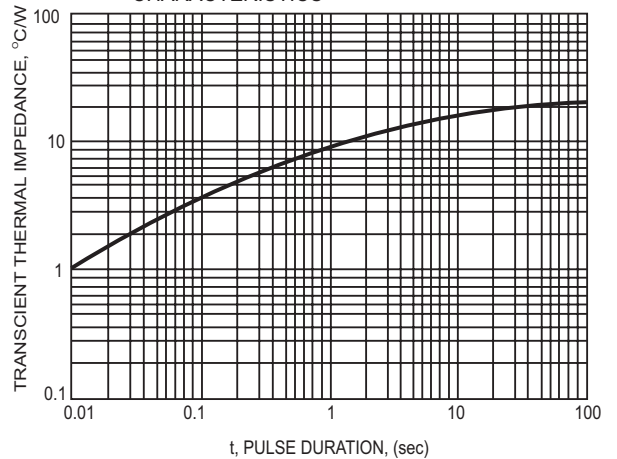
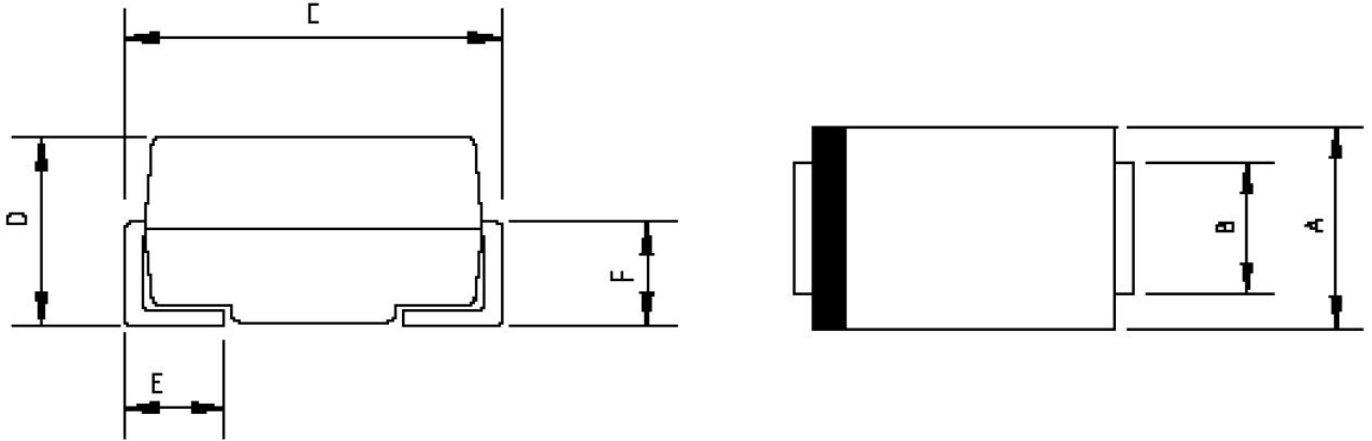


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



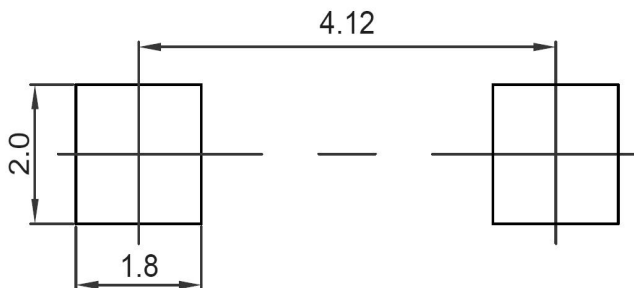
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SMA Package Outline Dimensions



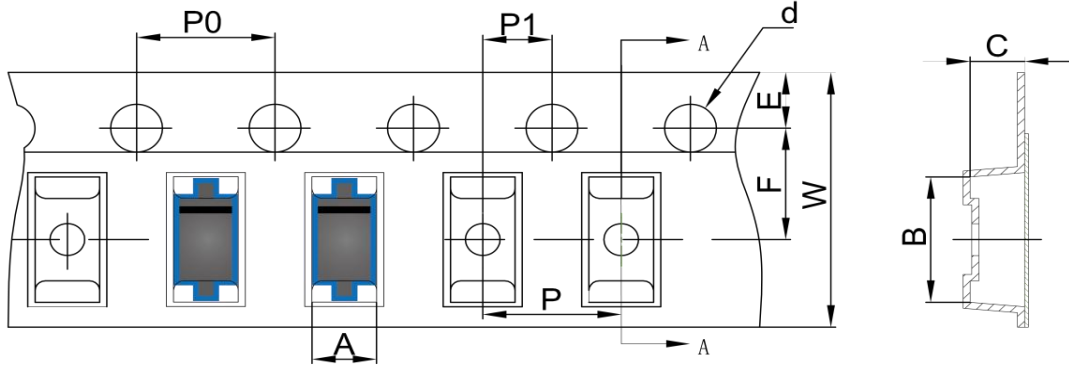
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.80	0.086	0.110
B	1.30	1.70	0.051	0.067
C	4.70	5.30	0.185	0.209
D	1.70	2.55	0.067	0.100
E	0.90	1.50	0.035	0.059
F	0.90	1.50	0.035	0.059

SMA Suggested Pad Layout

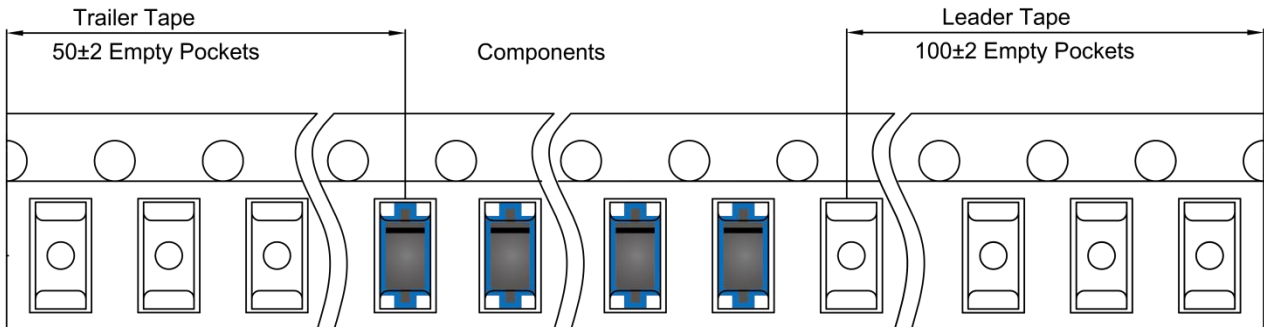
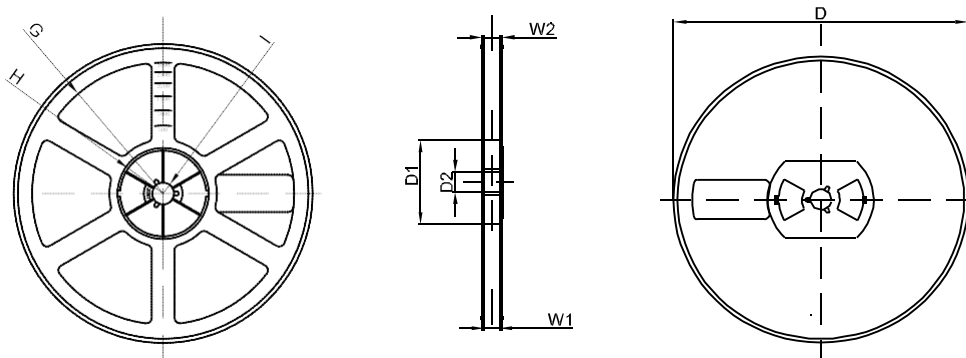


Note:

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
SMA Tape and Reel
SMA Embossed Carrier Tape


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMA	2.89	5.35	2.68	Ø1.50	1.75	5.50	4.00	4.00	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

SMA Tape Leader and Trailer

SMA Reel


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1