Hottech Semiconductor

SS32-SS320

SCHOTTKY BARRIER DIODE

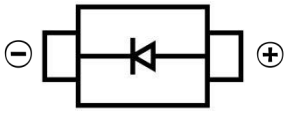
FEATURES

- Small Surface Mount device
- Low forward voltage drop
- Low power losses, high efficiency
- High surge current capability

SMC

MECHANICAL DATA

- Case: SMC(DO-214AB)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.21 grams (approximate)



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

Parameter	Symbol	SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	SS315	SS320	Unit
Marking		SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	SS315	SS320	
Repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	90	100	150	200	V
RMS Reverse Voltage	V_{RMS}	14	21	28	35	42	56	63	70	105	140	V
DC Reverse Voltage	V_R	20	30	40	50	60	80	90	100	150	200	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I_{FSM}	100										A
Maximum Average Forward Rectified Current	I_F	3.0										A
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	55.0										°C/W
	$R_{\theta JL}$	17										°C/W
Junction Temperature	T_J	-50 ~+125					-50 ~+150					°C
Storage Temperature	T_{STG}	-50 ~+150										°C

Note:1.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

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

Parameter	Symbol	SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	SS315	SS320	Unit	Conditions
Forward voltage	V_F	0.55			0.70		0.85			0.95		V	I_F=3A
Reverse current T_A=25°C	I_R	0.5					0.1					mA	$V=V_R$
Reverse current T_A=100°C	I_R	10.0			5							mA	
Junction capacitance	C_J	500			300							pF	V_R=4V,f=1MHZ

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Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

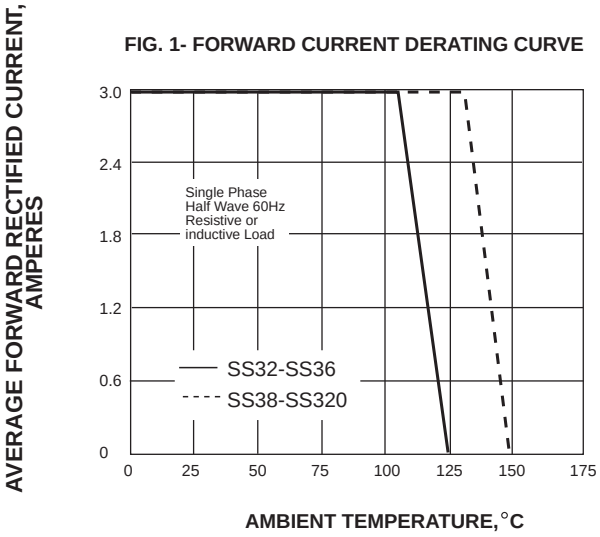


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

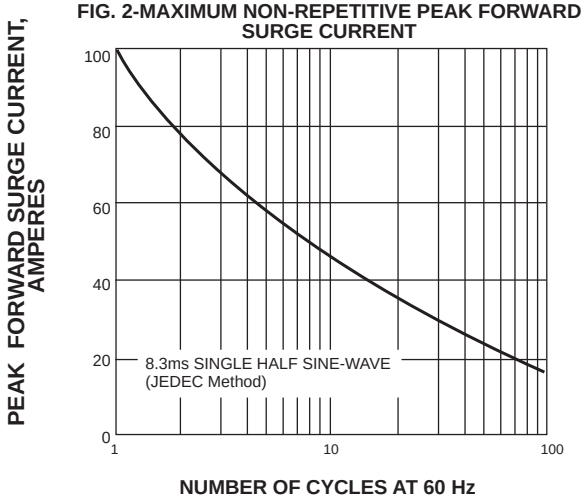


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

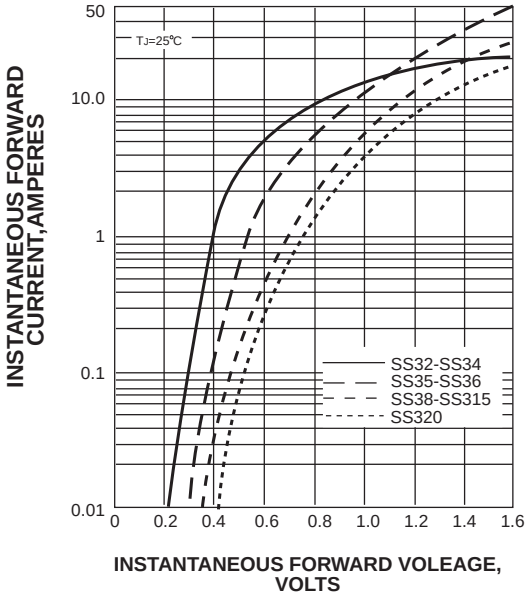


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

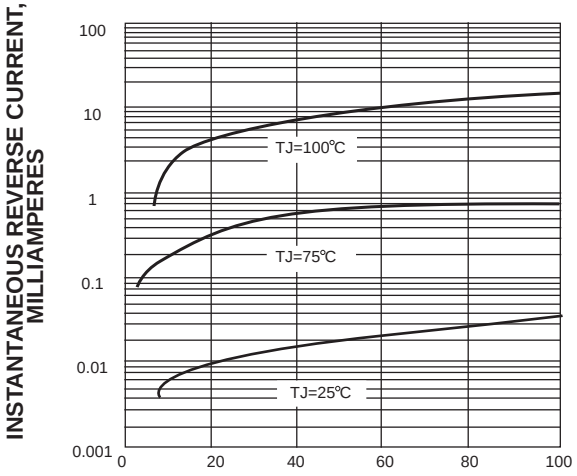


FIG. 5-TYPICAL JUNCTION CAPACITANCE

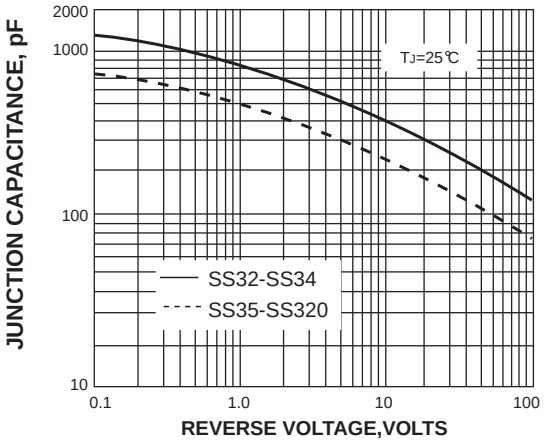
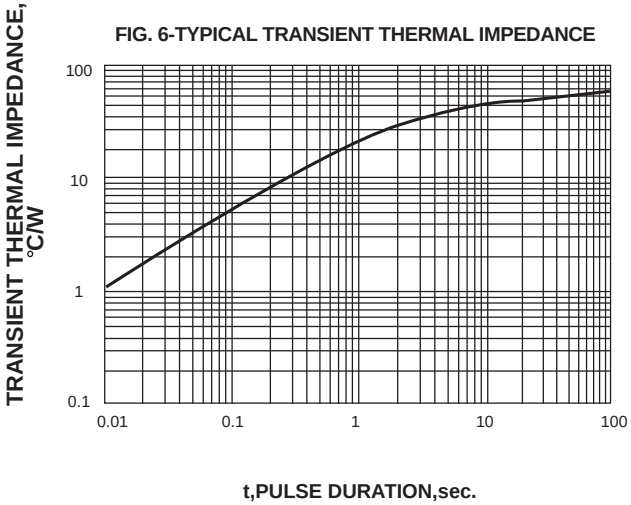
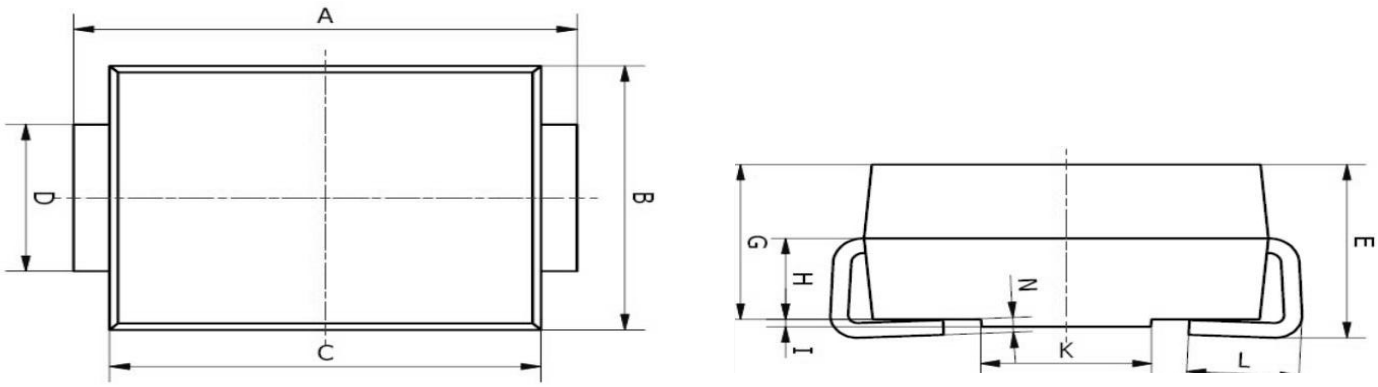


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

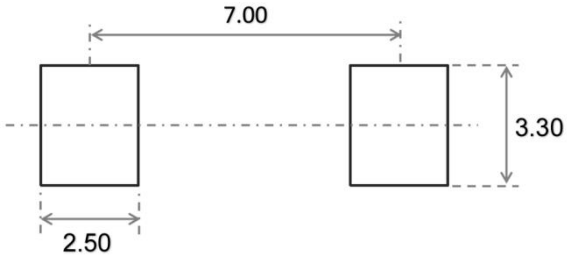


SMC Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	7.75	8.13	0.305	0.320
B	5.59	6.22	0.220	0.245
C	6.60	7.11	0.260	0.280
D	2.75	3.25	0.108	0.128
E	2.25	2.82	0.089	0.111
G	2.00	2.62	0.079	0.103
H	1.26	1.56	0.050	0.061
I	0.05	0.15	0.002	0.006
K	4.30	6.00	0.169	0.236
L	1.25	1.75	0.049	0.069
N	0.10	0.30	0.004	0.012

SMC Suggested Pad Layout



Note:

1.Controlling dimension: in millimeters

2.General tolerance: ±0.05mm

3.The pad layout is for reference purposes only

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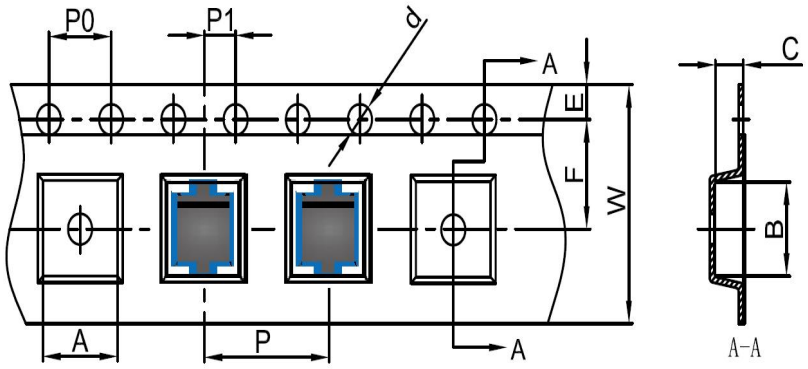
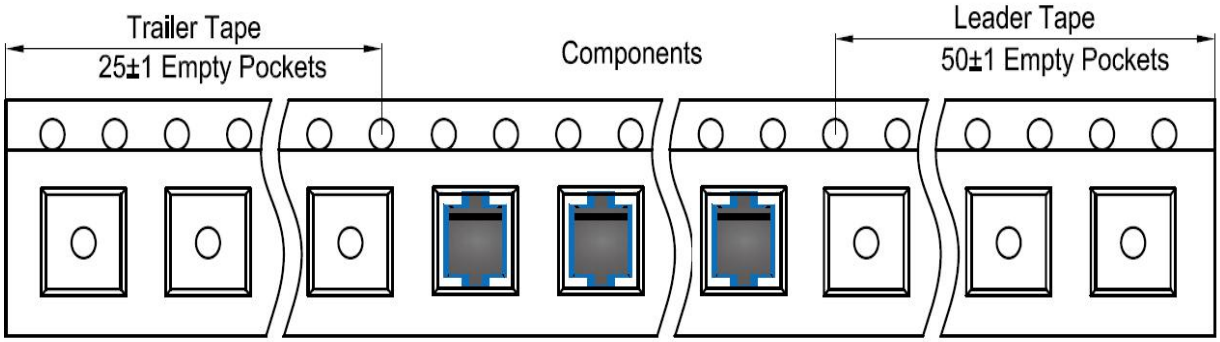
SMC Tape and Reel

SMC Embossed Carrier Tape

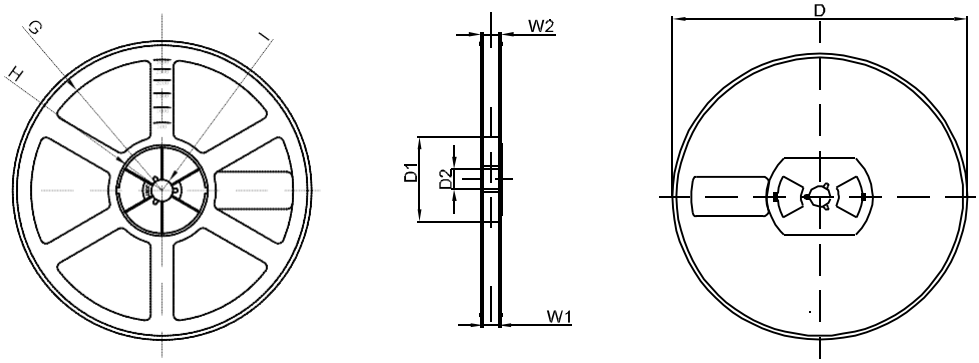


	DIMENSIONS ARE IN MILLIMETER									
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMC	6.3	8.25	2.90	Ø1.55	1.75	7.50	4.00	8.00	2.00	16.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SMC Tape Leader and Trailer



SMC Reel



	DIMENSIONS ARE IN MILLIMETER							
REEL OPTION	D	D1	D2	G	H	I	W1	W2
13” DIA	Ø330	100	21	R165	R50	R6.50	16.4	21.00
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1