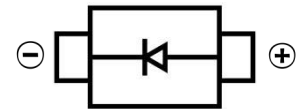


SCHOTTKY BARRIER DIODE
FEATURES

- 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	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	Unit
Marking		SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
DC Reverse Voltage	V _R	20	30	40	50	60	80	100	150	200	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I _{FSM}	150									A
Maximum Average Forward Rectified Current	I _F	5.0									A
Typical thermal resistance (NOTE 1)	R _{θJA}	55.0									°C/W
	R _{θJL}	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	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	Unit	Conditions	
Forward voltage	V _F	0.55		0.70		0.85		0.90	0.95		V	I _F =5A	
Reverse current T _A =25°C	I _R	0.2										mA	V=V _R
Reverse current T _A =100°C	I _R	50		10									
Junction capacitance	C _J	500		400								pF	V _R =4V,f=1MHZ

SCHOTTKY BARRIER DIODE

Typical Characteristics

FIG.1-FORWARD CURRENT DERATING CURVE

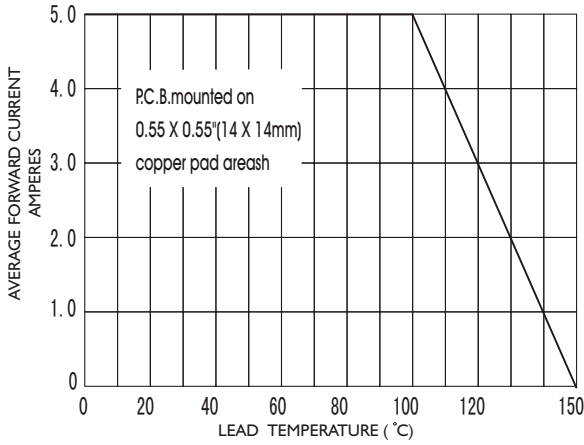


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

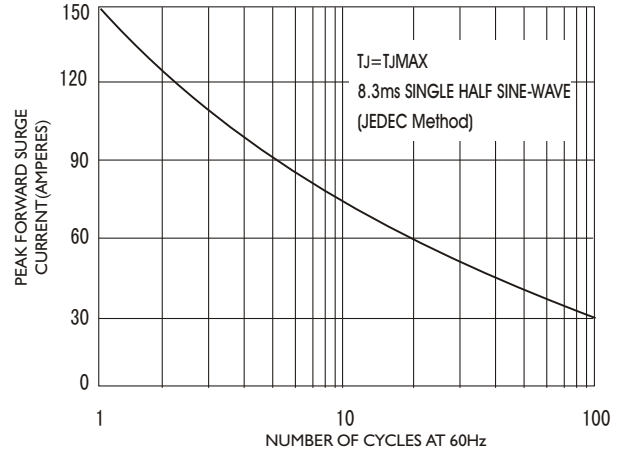


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

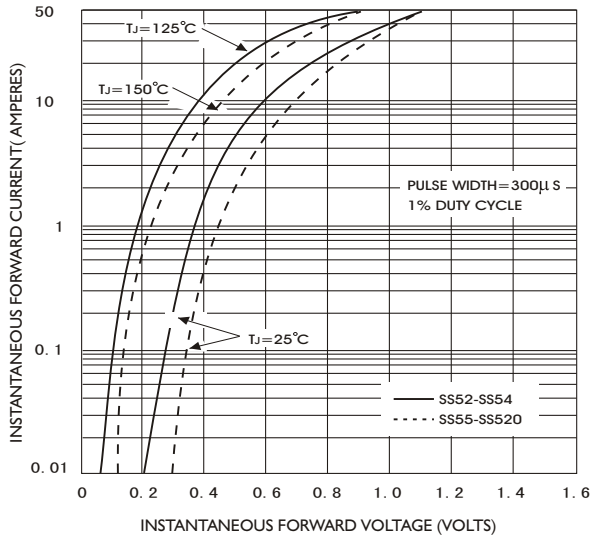


FIG.4-TYPICAL REVERSE CHARACTERISTICS

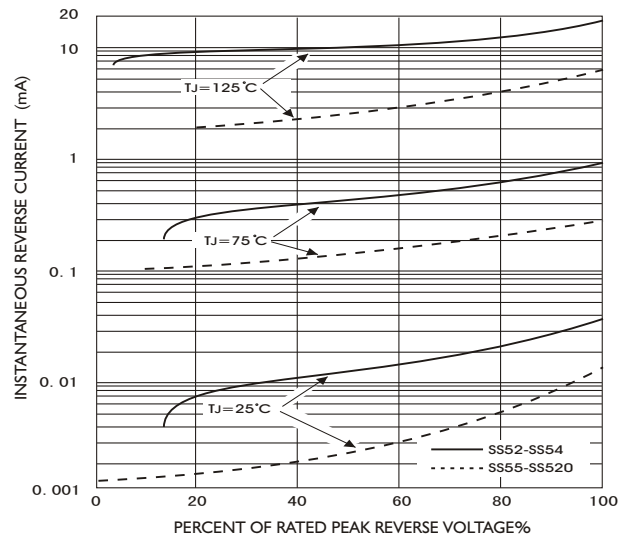


FIG.5-TYPICAL JUNCTION CAPACITANCE

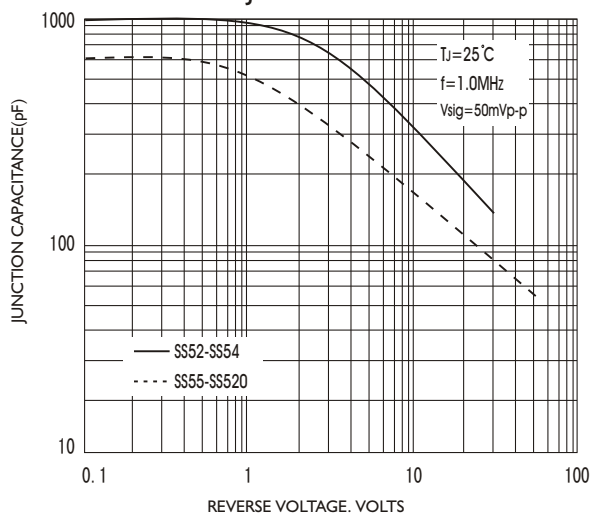
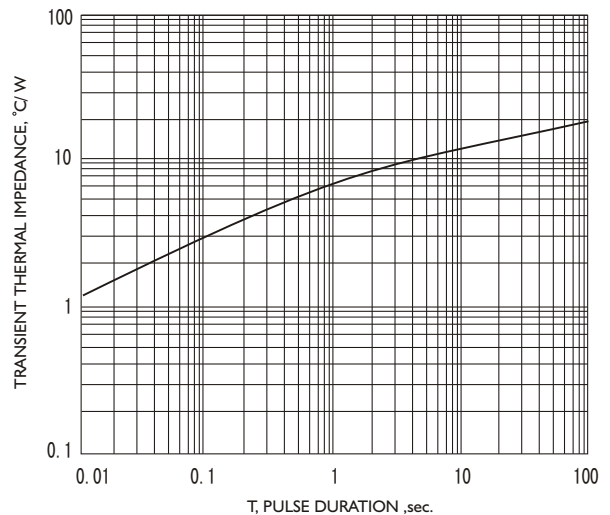
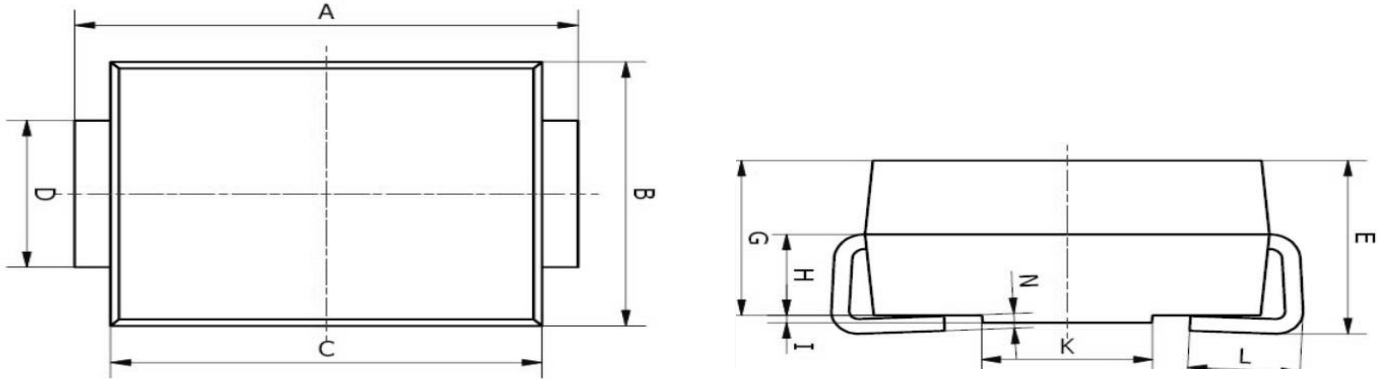
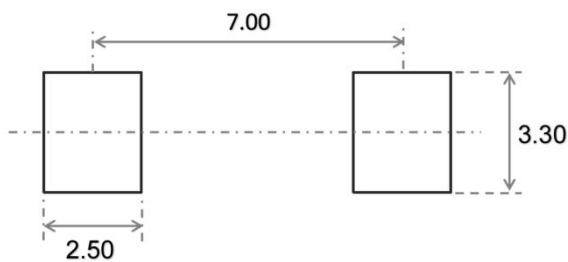


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

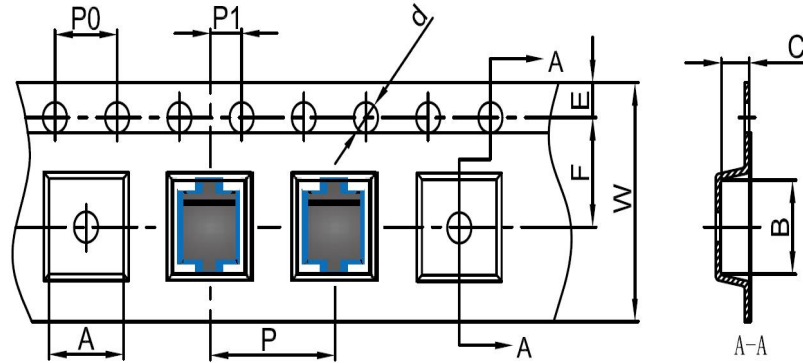


SCHOTTKY BARRIER DIODE
SMC Package Outline Dimensions


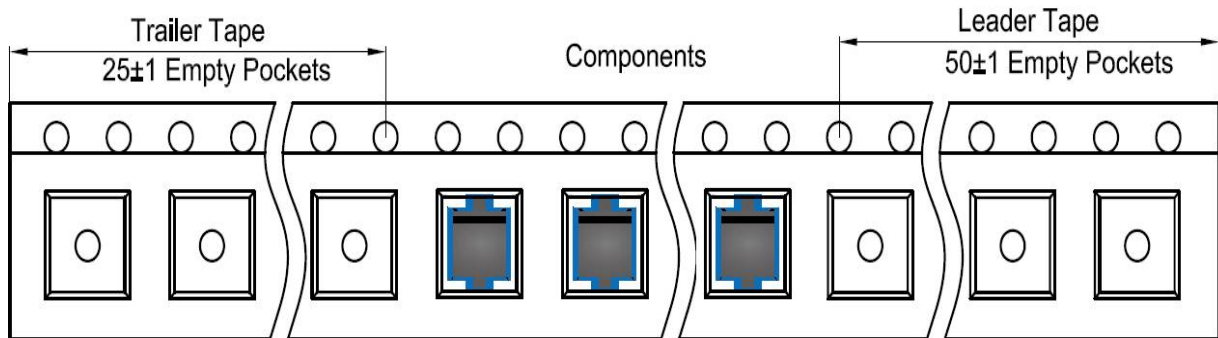
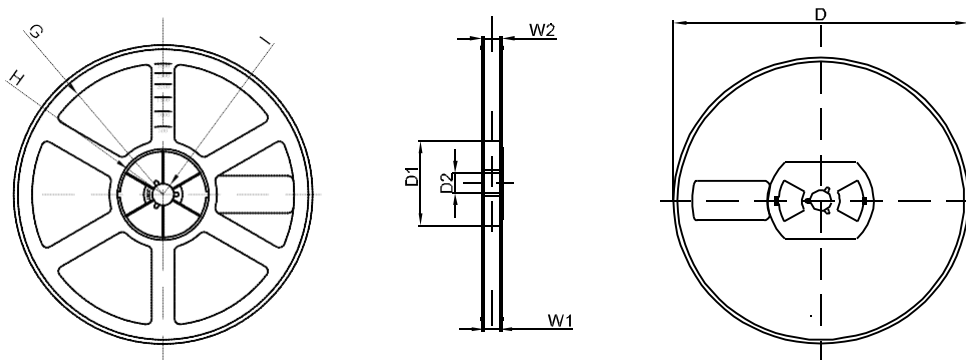
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	7.75	8.13	0.305	0.320
B	5.59	6.22	0.220	0.245
C	6.60	7.11	0.260	0.280
D	2.75	3.25	0.108	0.128
E	2.25	2.82	0.089	0.111
G	2.00	2.62	0.079	0.103
H	1.26	1.56	0.050	0.061
I	0.05	0.15	0.002	0.006
K	4.30	6.00	0.169	0.236
L	1.25	1.75	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: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SCHOTTKY BARRIER DIODE
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