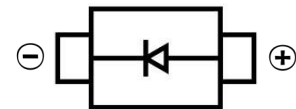


SCHOTTKY BARRIER DIODE
FEATURES

- Small Surface Mount device
- Low forward voltage drop
- Ultra-fast reverse recovery time
- 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
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.21 grams (approximate)

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

Parameter	Symbol	SK82	SK83	SK84	SK85	SK86	SK88	SK810	Unit
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	V
RMS Reverse Voltage	V _{RMS}	14	21	28	35	42	56	70	V
DC Reverse Voltage	V _R	20	30	40	50	60	80	100	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I _{FSM}	200							A
Maximum Average Forward Rectified Current	I _F	8.0							A
Thermal Resistance From Junction To Ambient	R _{θJL}	20							°C/W
Junction Temperature	T _J	-65 ~+150							°C
Storage Temperature	T _{STG}	-65 ~+150							°C

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

Parameter	Symbol	SK82	SK83	SK84	SK85	SK86	SK88	SK810	Unit	Conditions	
Forward voltage	V _F	0.50	0.55	0.70	0.85				V	I _F =8A	
Reverse current T _A =25°C	I _R	1.0								mA	V=V _R
Reverse current T _A =100°C	I _R	20.0									
Junction capacitance	C _J	400								pF	V _R =4V, f=1MHZ

SCHOTTKY BARRIER DIODE

Typical Characteristics

Fig.1 Forward Current Derating Curve

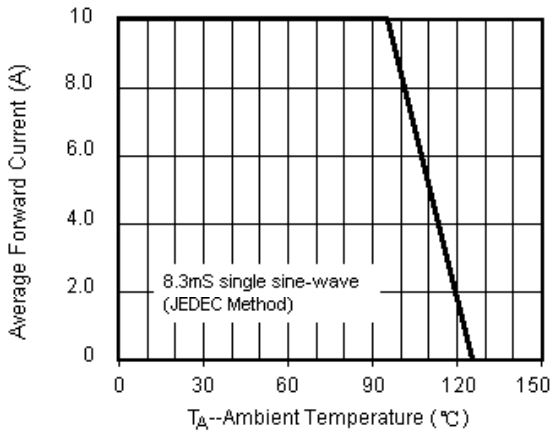


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

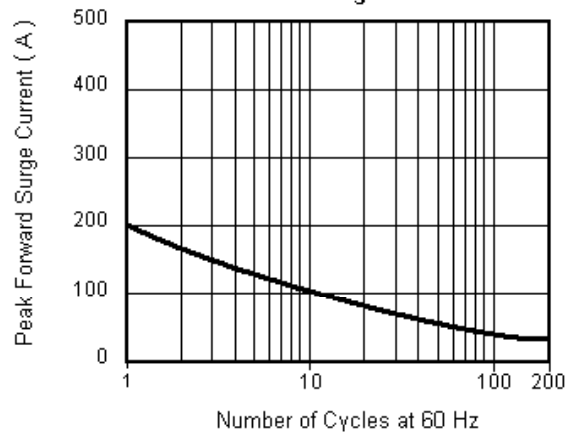


Fig.3 Typical Instantaneous Forward Characteristics

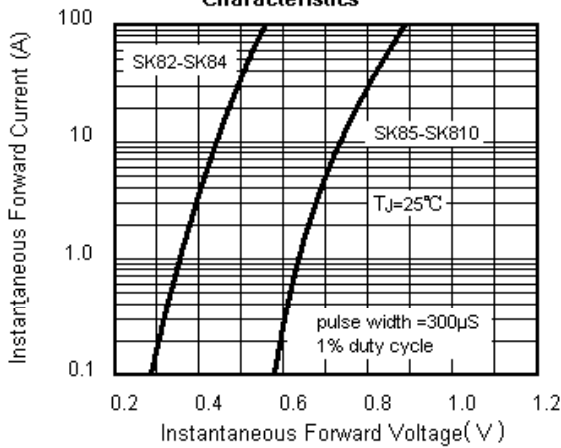


Fig.4 Typical Reverse Leakage Characteristics

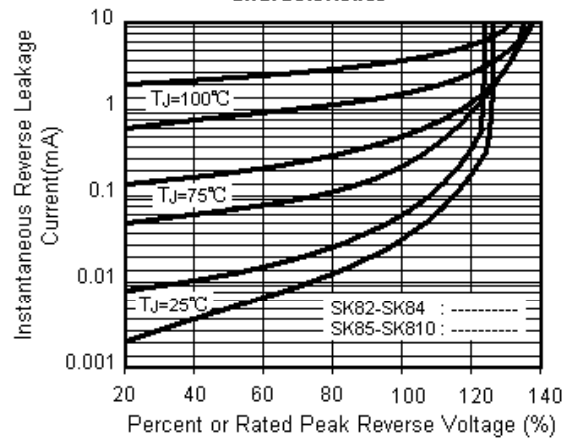
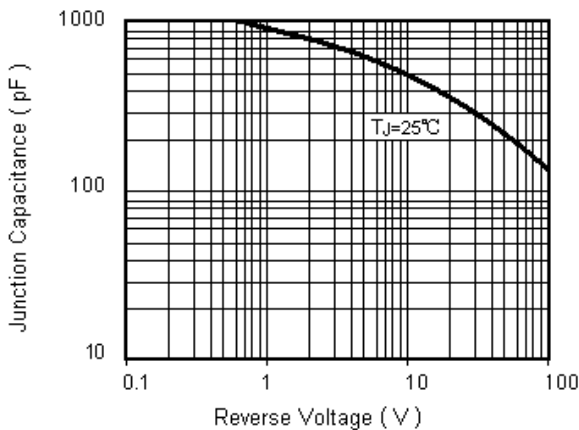
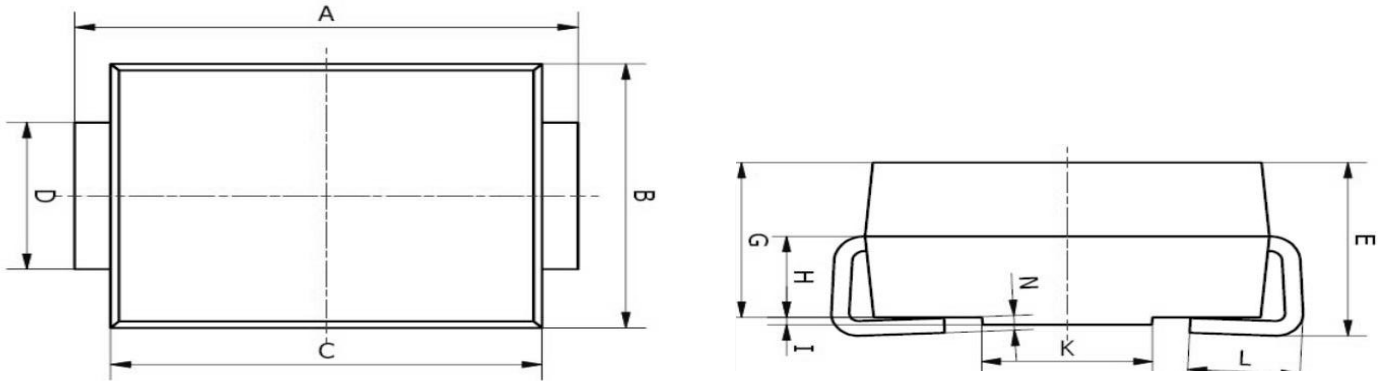
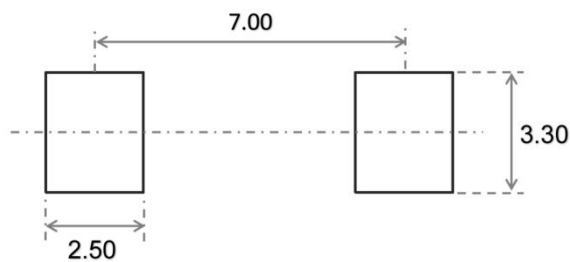


Fig.5 Typical Junction Capacitance

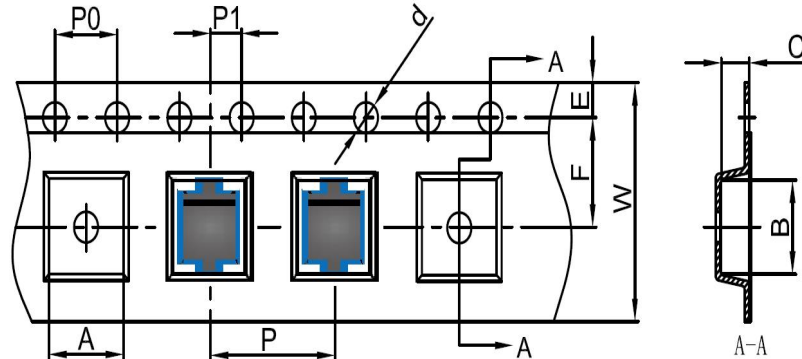


SCHOTTKY BARRIER DIODE
SMC Package Outline Dimensions


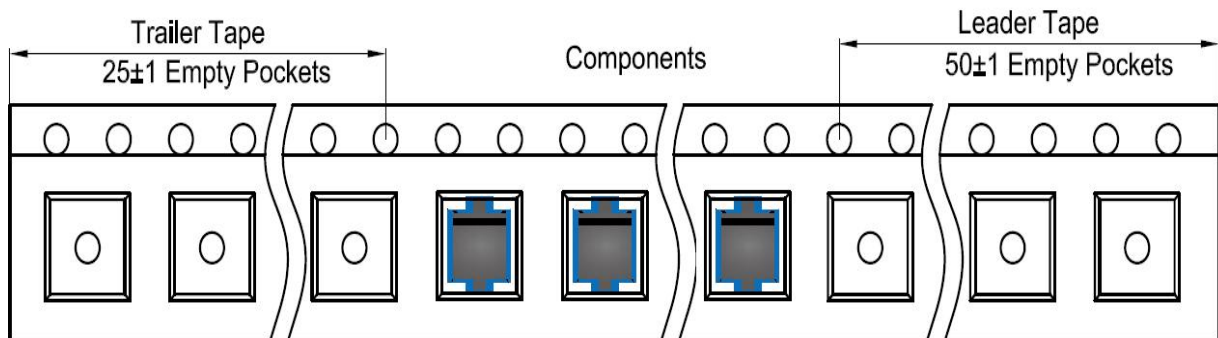
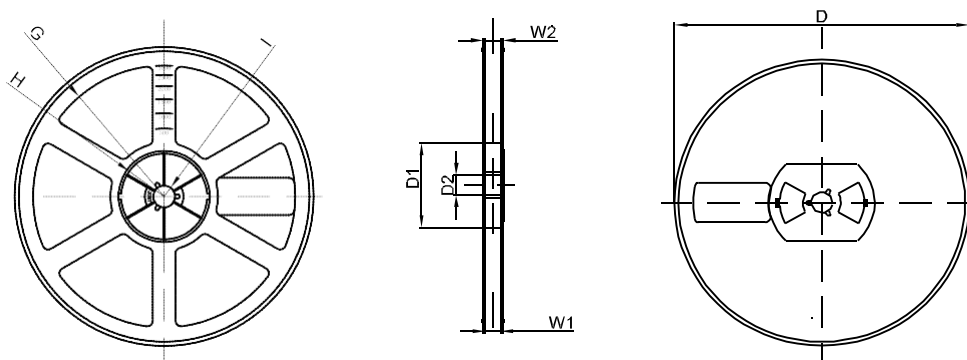
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	7.75	8.13	0.305	0.320
B	5.59	6.22	0.220	0.245
C	6.60	7.11	0.260	0.280
D	2.75	3.25	0.108	0.128
E	2.25	2.82	0.089	0.111
G	2.00	2.62	0.079	0.103
H	1.26	1.56	0.050	0.061
I	0.05	0.15	0.002	0.006
K	4.30	6.00	0.169	0.236
L	1.25	1.75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