SK82C THRU SK810C

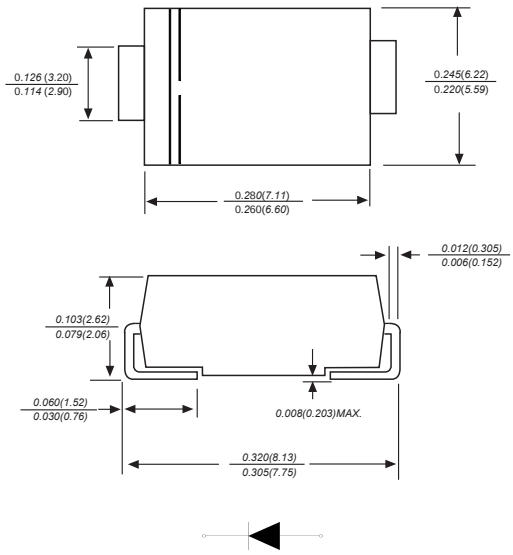
Reverse Voltage - 20 to 100 Volts Forward Current - 8.0 Ampere

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 °C/10 seconds at terminals

DO-214AB/SMC RoHS COMPLIANT



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AB/SMC molded plastic body
Terminals : Solderable per MIL-STD-750,Method 2026
Polarity : Color band denotes cathode end Mounting Position : Any
Weight : 0.007 ounce, 0.25 grams

Maximum Ratings And Electrical Characteristics

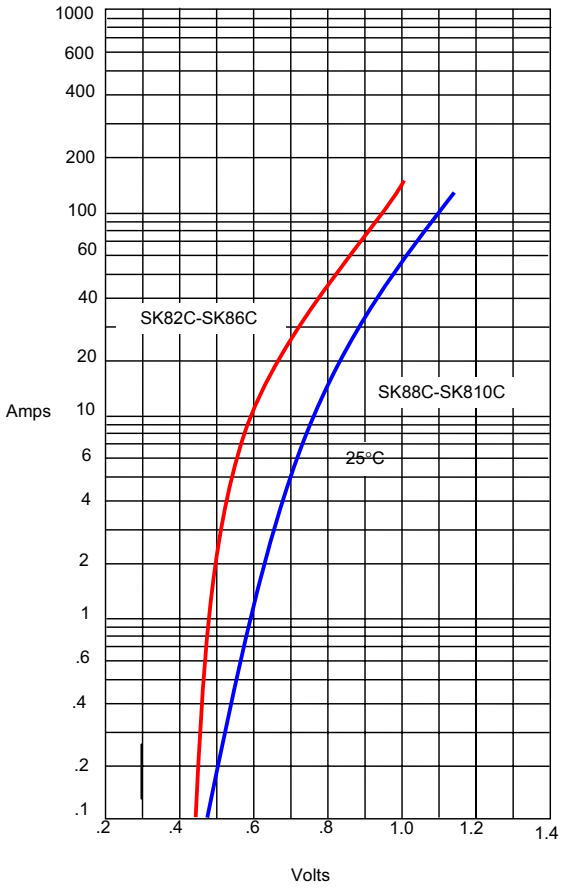
Ratings at 25° C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter	SYMBOLS	SK82C	SK83C	SK835C	SK84C	SK845C	SK86C	SK88C	SK810C	UNITS
Marking Code		MDD SK82C	MDD SK83C	MDD SK835C	MDD SK84C	MDD SK845C	MDD SK86C	MDD SK88C	MDD SK810C	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	35	40	45	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	24.5	28	31.5	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	35	40	45	60	80	100	V
Maximum average forward rectified current at TL(see fig.1)	$I_{(AV)}$	8.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	200								A
Maximum instantaneous forward voltage at 8.0A	V_F	0.65						0.85		V
Maximum DC reverse current at rated DCblocking voltage T_A=25℃	I_R	1.0								mA
Maximum DC reverse current at rated DCblocking voltage T_A=125℃	I_R	20								mA
Typical junction capacitance (NOTE 1)	C_J	400								pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	18.0								℃/W
Operating junction temperature range	T_J	-50 to +150								℃
Storage temperature range	T_{STG}	-50 to +150								℃

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

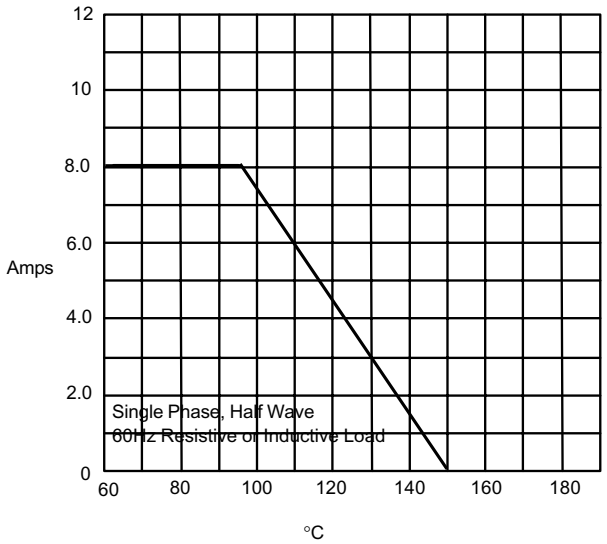
Typical Characterisitics

Figure 1
Typical Forward Characteristics



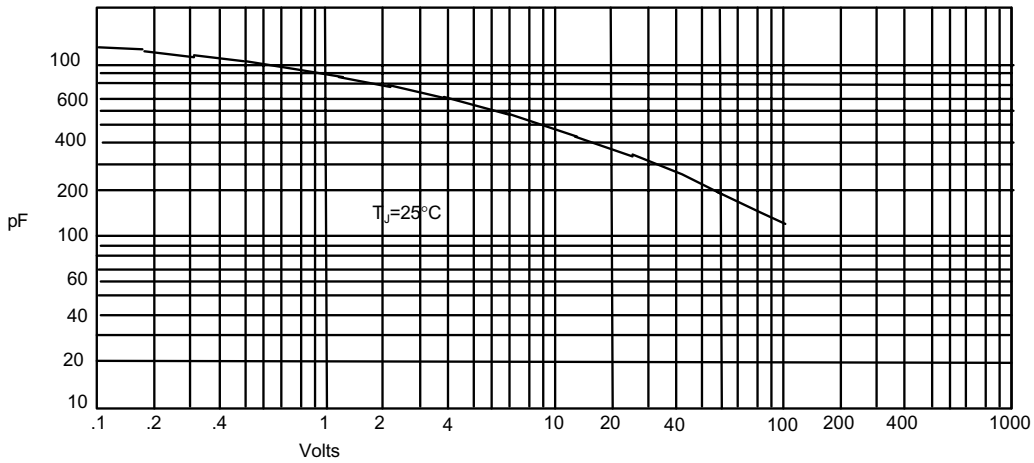
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes*versus* Junction
Temperature -°C

Figure 3
Junction Capacitance

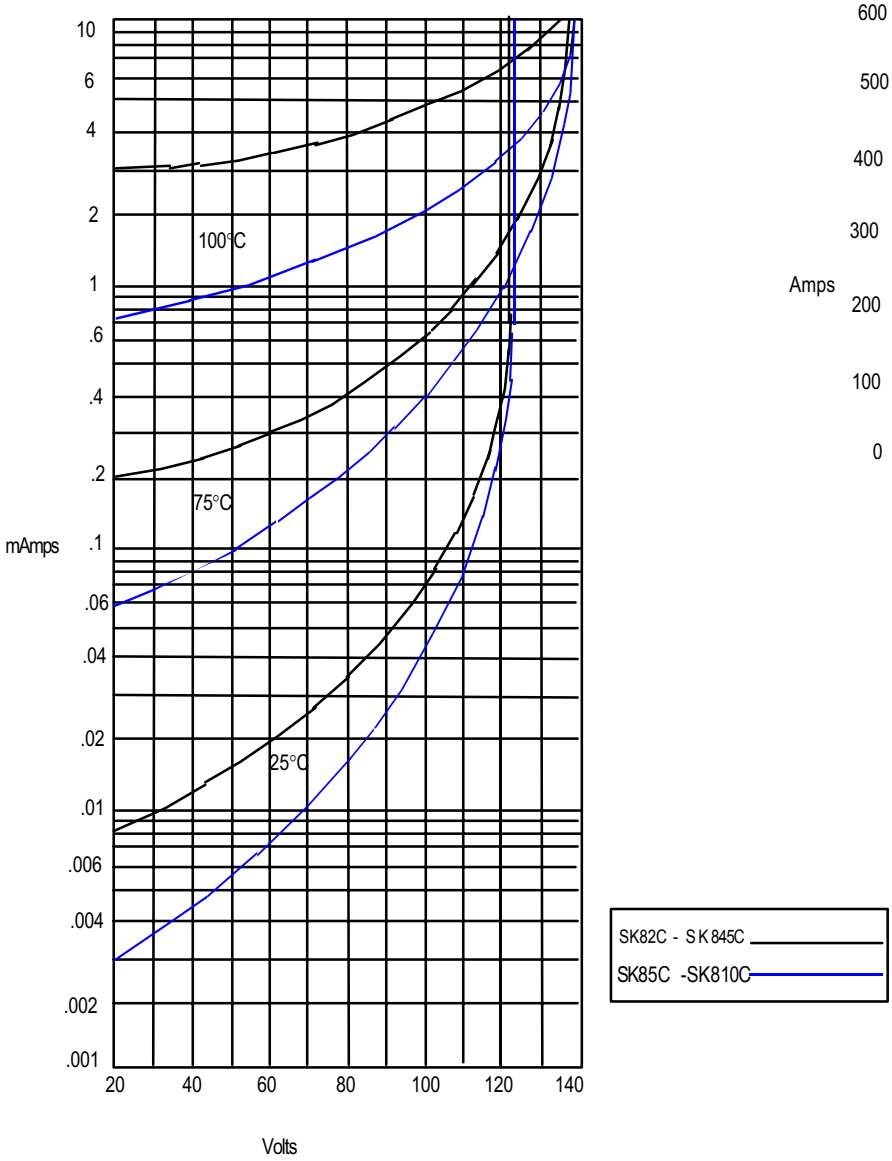


Junction Capacitance - pF *versus*
Reverse Voltage - Volts

The curve above is for reference only.

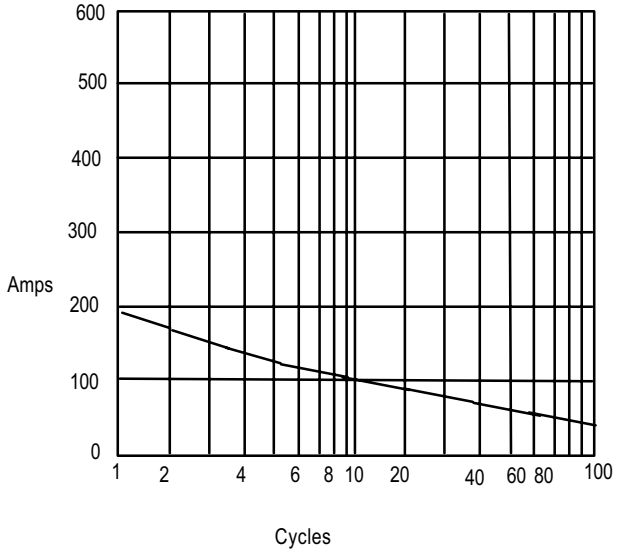
Typical Characterisitics

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus* Percent Of Rated Peak Reverse Voltage - Volts

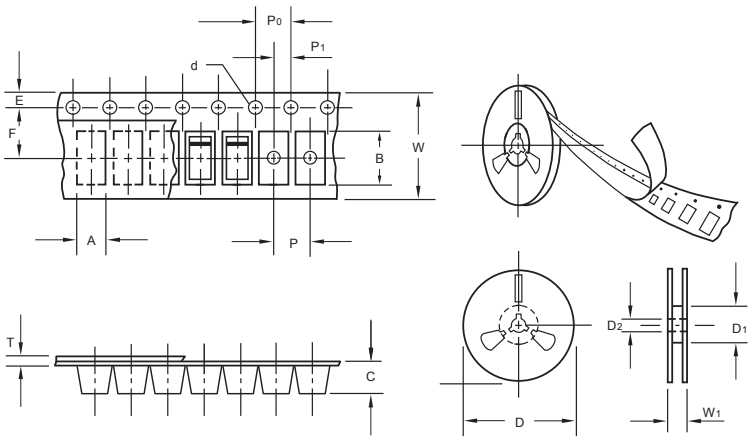
Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus* Number Of Cycles At 60Hz - Cycles

The curve above is for reference only.

Packing information



unit:mm

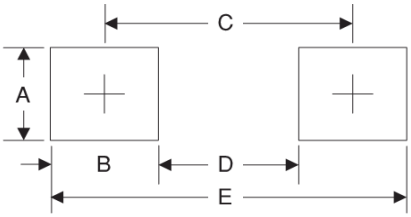
Item	Symbol	Tolerance	SMC
Carrier width	A	0.1	6.15
Carrier length	B	0.1	8.41
Carrier depth	C	0.1	2.42
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.00
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	16.00
Reel width	W_1	1.0	16.50

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (mm)	BOX (pcs)	INNER BOX (mm)	REEL DIA, (mm)	CARTON SIZE (mm)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMC	13"	3,000	4.0	6000	190*190*41	330	365*365*340	42000	14.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	4.3	0.170
B	4.1	0.160
C	7.9	0.311
D	3.8	0.150
E	12	0.472

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