



SK82C THRU SK810C

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

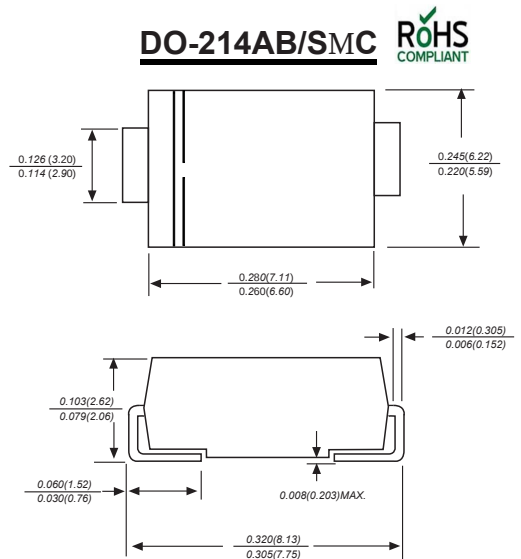
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

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



Dimensions in inches and (millimeters)

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 T _A =25℃ at rated DCblocking voltage T _A =125℃	I _R	1.0								mA
		20								
Typical junction capacitance (NOTE 1)	C _J	400								pF
Typical thermal resistance (NOTE 2)	R _{0JA}	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

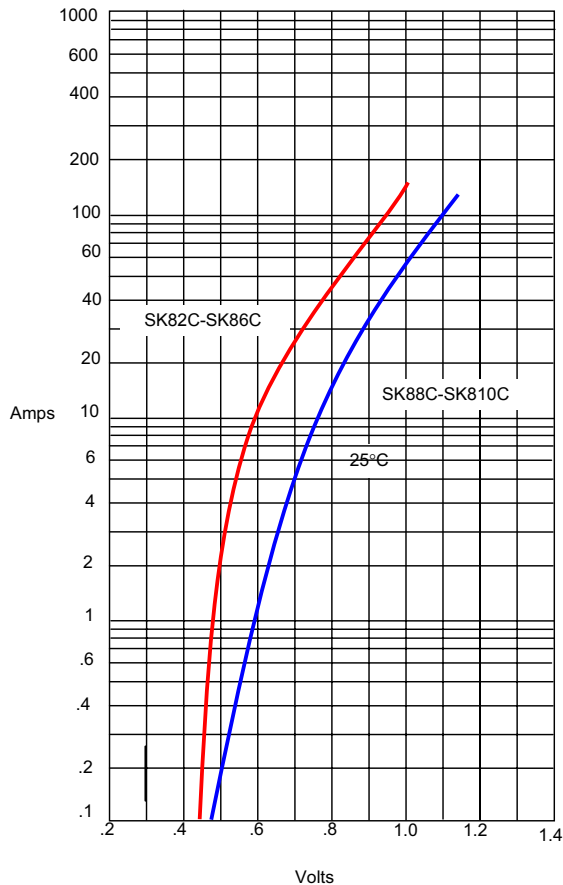


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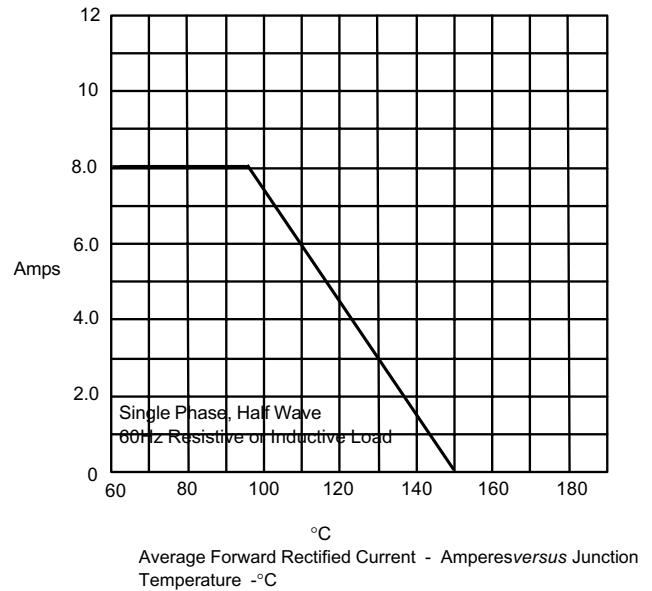
Typical Characteristics

Figure 1
Typical Forward Characteristics



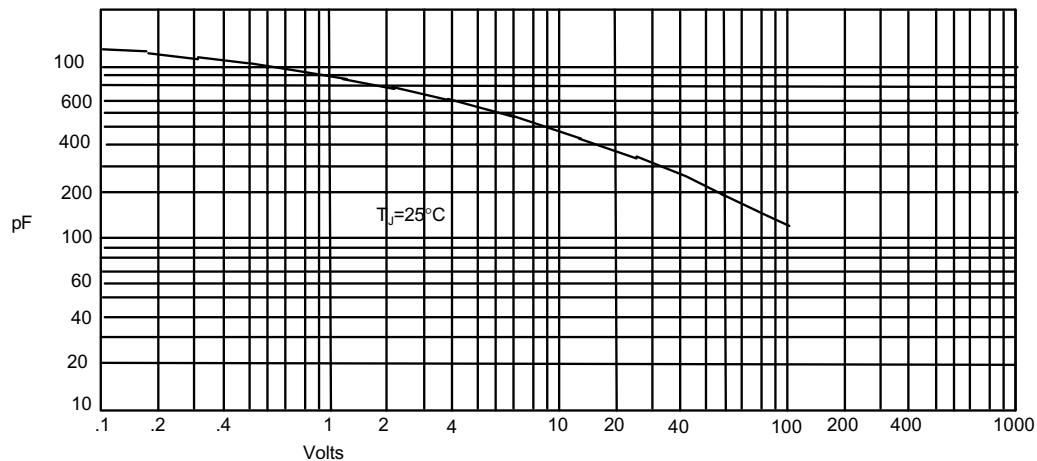
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

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

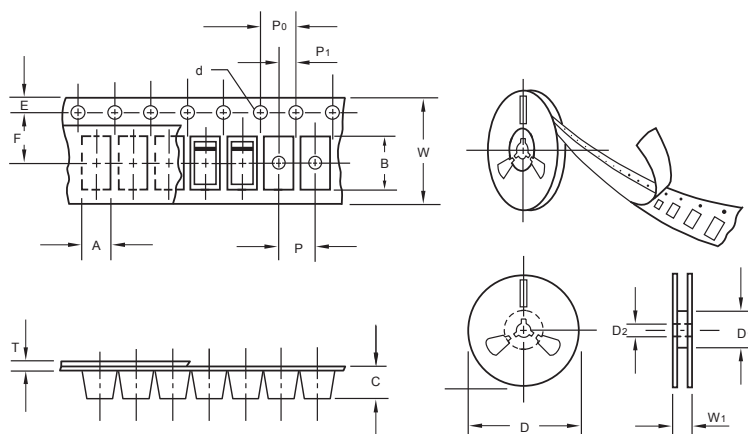
The curve above is for reference only.



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Packing information



unit:mm

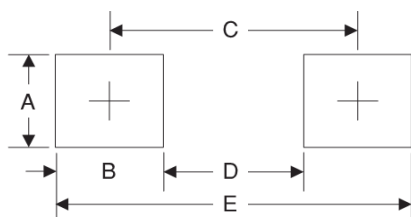
Item	Symbol	Tolerance	SMC
Carrier width	A	0.1	6.15
Carrier length	B	0.1	8.41
Carrier depth	C	0.1	2.42
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D ₁	min	50.00
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
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 accordance with EIA standard 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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