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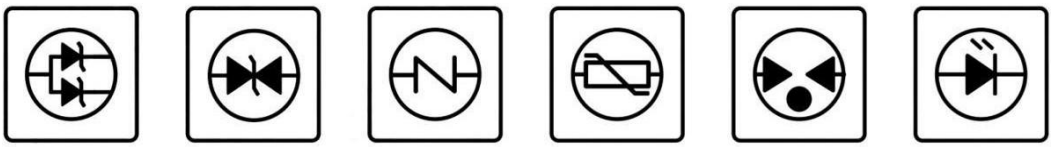
SEMICONDUCTOR



SK102C-MS THRU SK1010C-MS

Product specification

SK102C-MS THRU SK1010C-MS

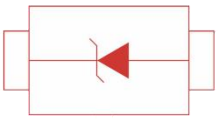
Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

MECHANICAL DATA

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.21 grams (approx.)

Reference News

SMC/DO-214AB	Schematic Diagram
	

Marking

SK102C-MS	SK103C-MS	SK1035C-MS	SK104C-MS
SK102	SK103	SK1035	SK104
SK1045C-MS	**SK106C-MS**	**SK108C-MS**	**SK1010C-MS**
SK1045	SK106	SK108	SK1010

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

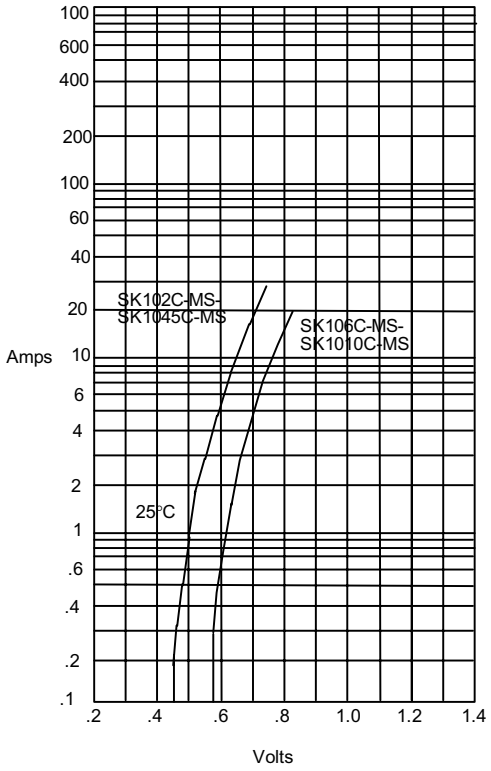
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SK102 C-MS	SK103 C-MS	SK1035 C-MS	SK104 C-MS	SK1045 C-MS	SK106 C-MS	SK108 C-MS	SK1010 C-MS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	35	40	45	60	80	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	24.5	28	31.5	42	56	70	V
Average Rectified Output Current @T_L = 90°C	I_O	10.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250.0								A
Forward Voltage @I_F = 10 A	V_{FM}	0.65					0.85			V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	1.0 20								mA
Typical junction capacitance (Note1)	C_J	500								pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	18								°C/W
Operating Temperature Range	T_j	-65 to +125								°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

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

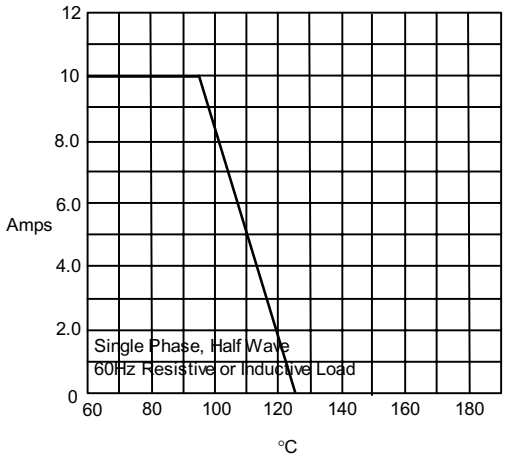
RATINGS AND CHARACTERISTIC CURVES SK102C-MS THRU SK1010C-MS

Figure 1
Typical Forward Characteristics



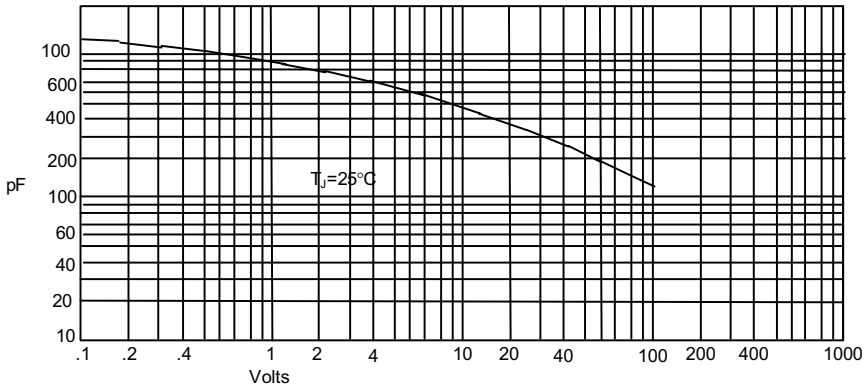
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



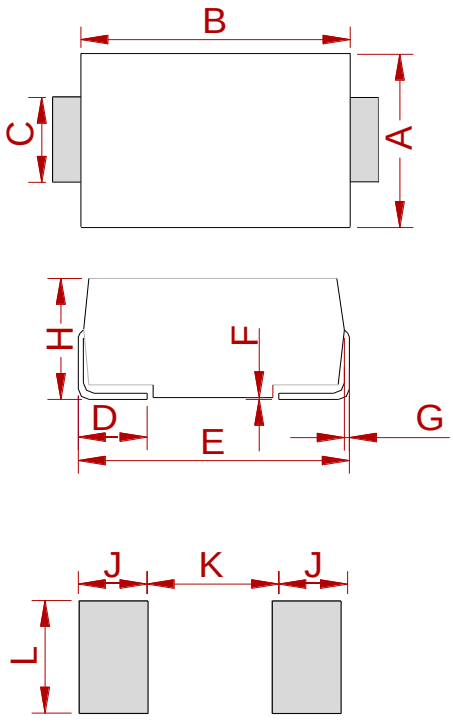
Average Forward Rectified Current - Amperes
versus Lead Temperature - C

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

PACKAGE MECHANICAL DATA



DO-214AB (SMC)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

REEL SPECIFICATION

P/N	PKG	QTY
SK102C-MS THRU SK1010C-MS	SMC	3000

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