Technical Data
Data Sheet N1376, Rev.A

SD1040C STANDARD RECTIFIER

SMC

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated , Solderable Per MIL-STD 750 ,Method 2026
- Polarity: Cathode Band or Cathode Notch

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

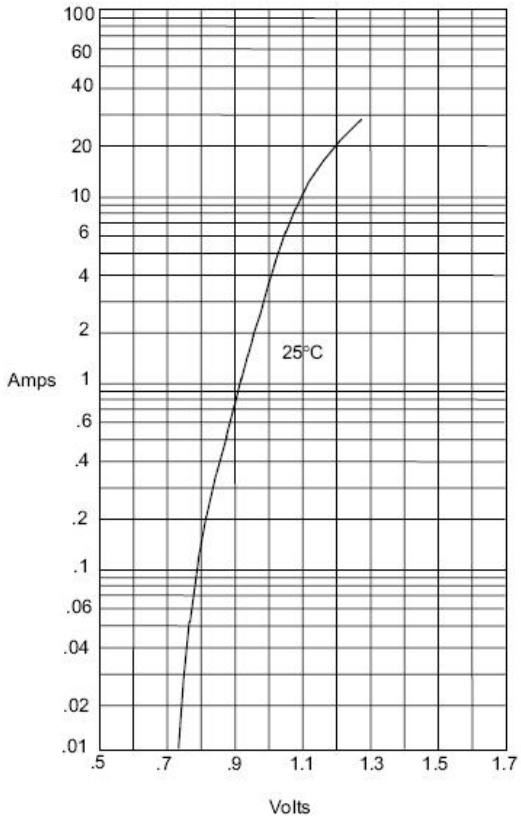
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SD1040C	Units
Maximum Peak Repetitive Reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_R	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead Length @T_A = 75°C	$I_{(AV)}$	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200	A
Maximum Instantaneous Forward Voltage @I_F = 10.0A	V_F	1.2	V
Maximum DC Reverse Current @T_A = 25°C	I_R	10	uA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	20	°C/W
Operating Storage Temperature Range	T_{STG}	-65 to +150	°C
Operating Junction Temperature	T_J	-65 to +150	°C

Note: 1. Thermal resistance form junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

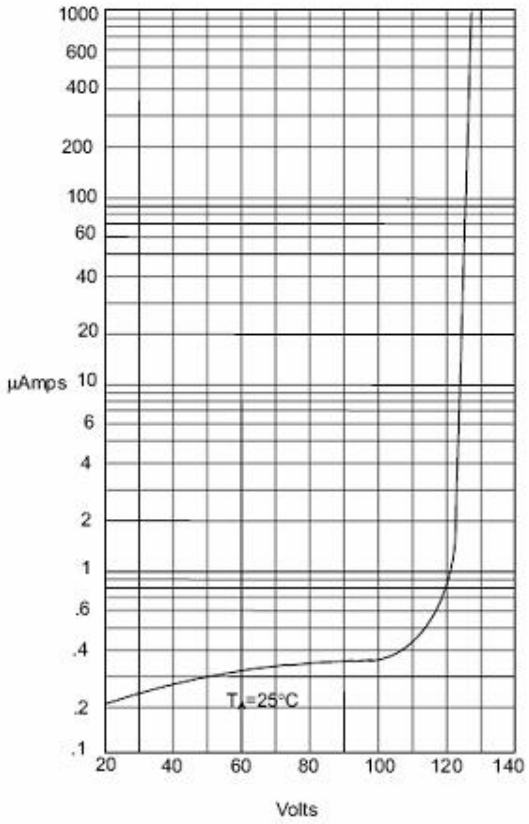
Ratings and Characteristics Curves

Figure 1
Typical Forward Characteristics



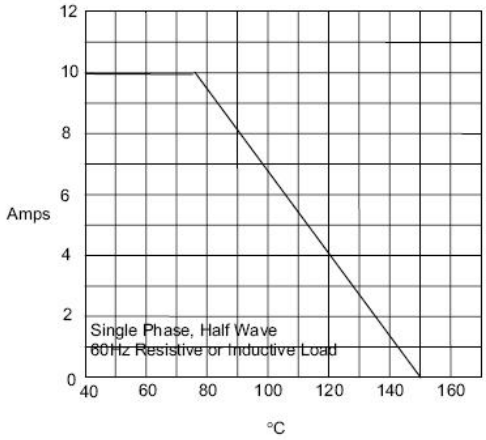
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 3
Typical Reverse Characteristics



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

Figure 2
Forward Derating Curve



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

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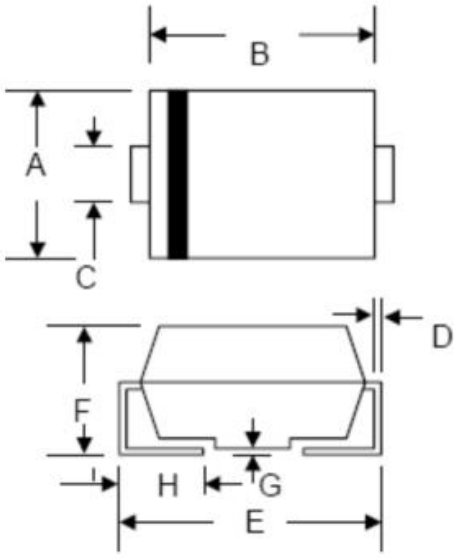
RoHS

Mechanical Dimensions SMC



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.90	3.20	0.114	0.126
D	0.152	0.305	0.006	0.012
E	7.75	8.25	0.305	0.325
F	2.00	2.95	0.079	0.116
G	-	0.203	-	0.008
H	0.76	1.52	0.030	0.060

Ordering Information

Device	Package	Shipping
SD1040C	SMC (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

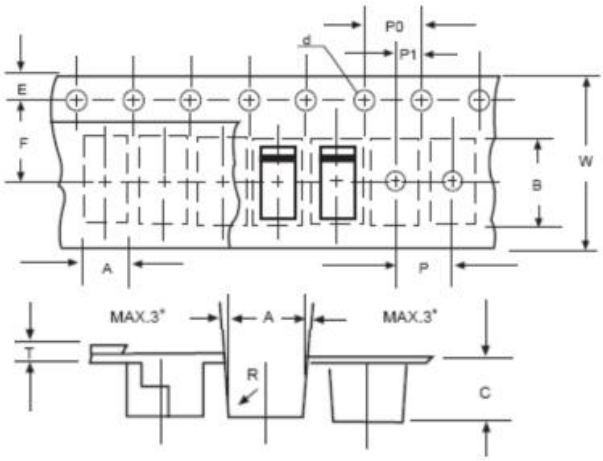
Marking Diagram

Where XXXXX is YYWWL

SD1040C = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification SMC



SYMBOL	Millimeters	
	Min.	Max.
A	5.90	6.10
B	8.20	8.40
C	2.40	2.60
d	1.40	1.60
E	1.40	1.60
F	7.60	7.70
P	7.90	8.10
P0	3.90	4.10
P1	3.90	4.10
T	-	0.600
W	15.80	16.20

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