

# M·C·C·

Micro Commercial Components



Micro Commercial Components  
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**SD820  
THRU  
SD8100**

## Features

- Halogen free available upon request by adding suffix "-HF"
- Low Switching Noise and Low Forward Voltage Drop
- High Current Capability and High Surge Current Capability
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Ambient

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SD820	20V	14V	20V
SD830	30V	21V	30V
SD840	40V	28V	40V
SD850	50V	35V	50V
SD860	60V	42V	60V
SD880	80V	56V	80V
SD8100	100V	70V	100V

## Electrical Characteristics @25°C Unless Otherwise Specified

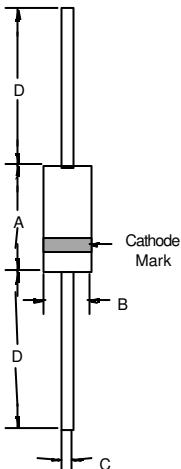
Average Forward Current	$I_{F(AV)}$	8.0A	$T_A = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	175A	8.3ms, half sine
Maximum Instantaneous Forward Voltage			
SD820-SD860	$V_F$	.62V	$I_{FM} = 8.0\text{A};$
SD880-SD8100		.85V	$T_A = 25^\circ\text{C}(\text{Note 2})$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.5mA 50mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	550pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

2. Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

**8 Amp Schottky  
Barrier Rectifier  
20 to 100 Volts**

**DO-201AD**



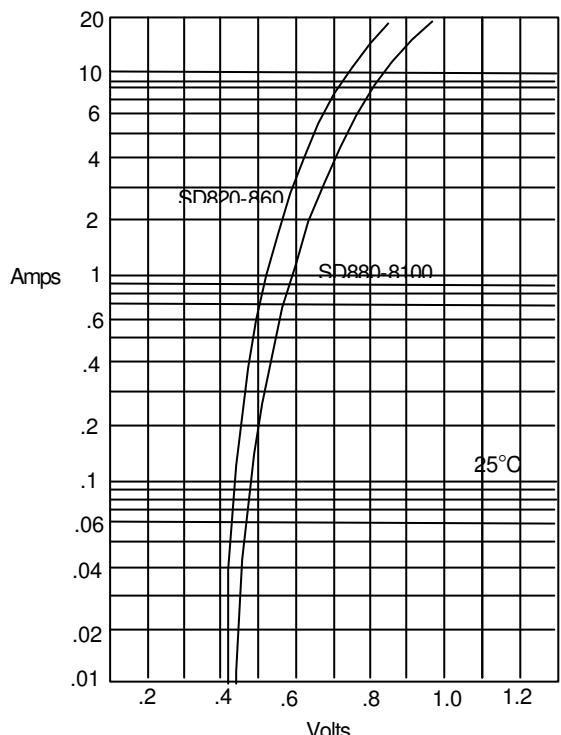
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.287	.374	7.30	9.50	
B	.189	.208	4.80	5.30	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

# SD820 thru SD8100

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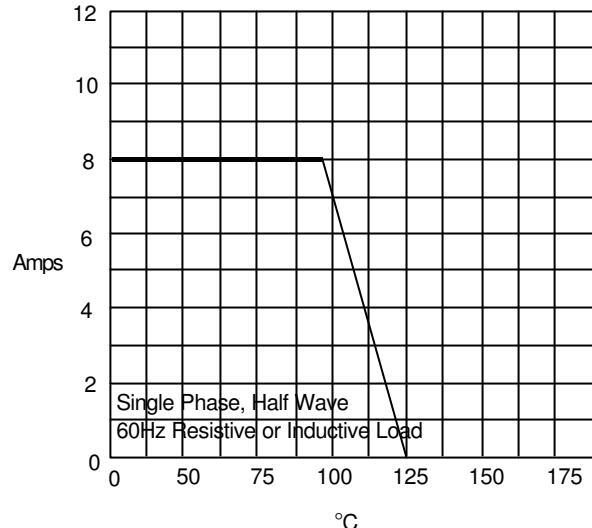
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Figure 1  
Typical Forward Characteristics



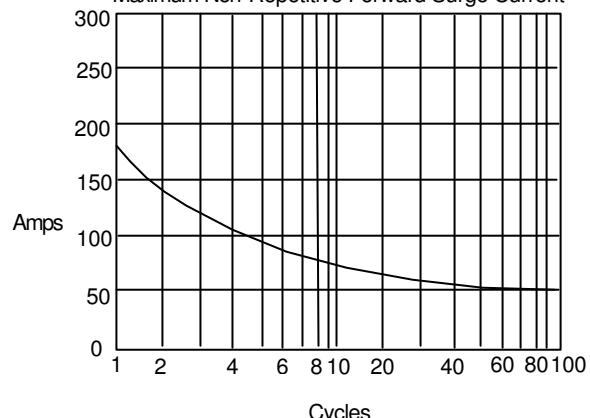
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



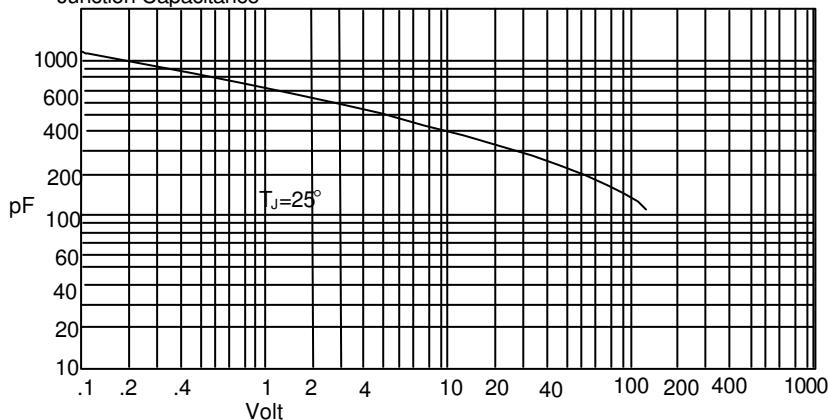
Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Maximum Non-Repetitive Forward Surge Current



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

Figure 4  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk: 12Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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