SOLID STATE INC.
46 FARRAND STREET
BLOOMFIELD, NEW JERSEY 07003 www.solidstateinc.com

SD41

25 Amp Schottky Barrier Rectifier 45 Volts

Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

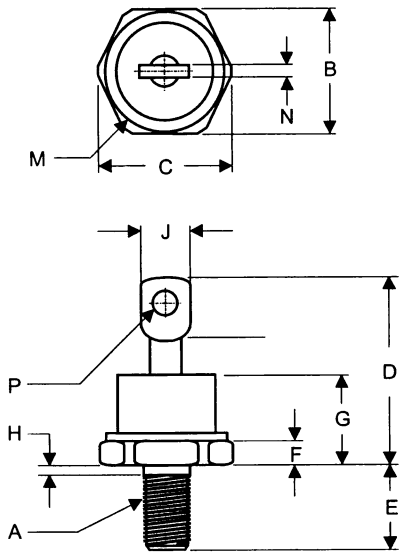
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SD41	45V		45V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	25 A	T_L = 105°C
Peak Forward Surge Current	I_{FSM}	600A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	.55V	I_{FM} = 30 A; T_A = 125°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	20mA	T_A = 125°C

*Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

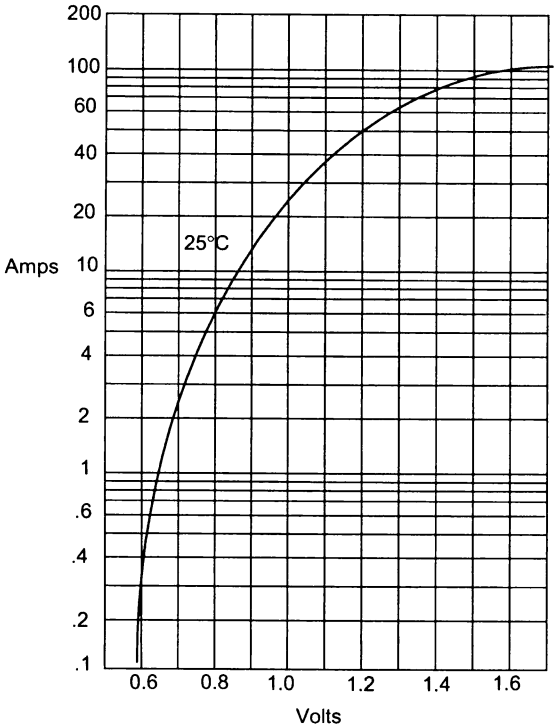
DO-4



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	10-32 UNF3A	Threads	Standard	Polarity	
B	.424	.437	10.77	11.10	
C	----	.505	----	12.82	
D	.600	.800	15.24	20.32	
E	.422	.453	10.72	11.50	
F	.075	.175	1.91	4.44	
G	-----	.405	----	10.29	
H	.163	.189	4.15	4.80	
J	-----	.310	----	7.87	
M	-----	.350	----	8.89	Ø
N	.020	.065	0.51	1.65	
P	.060	.100	1.53	2.54	Ø

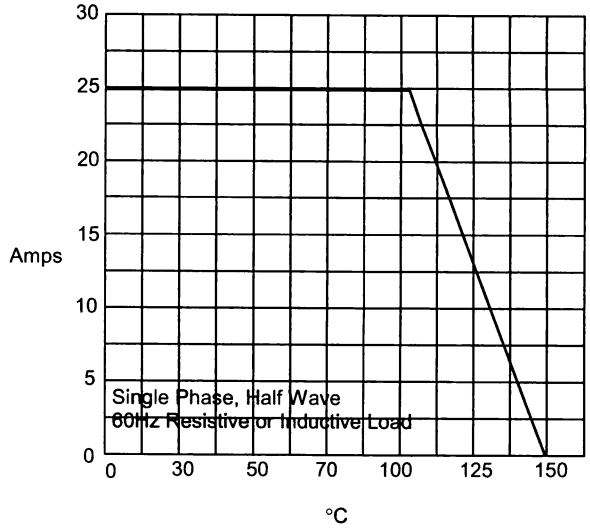
SD41

Figure 1
Typical Forward Characteristics



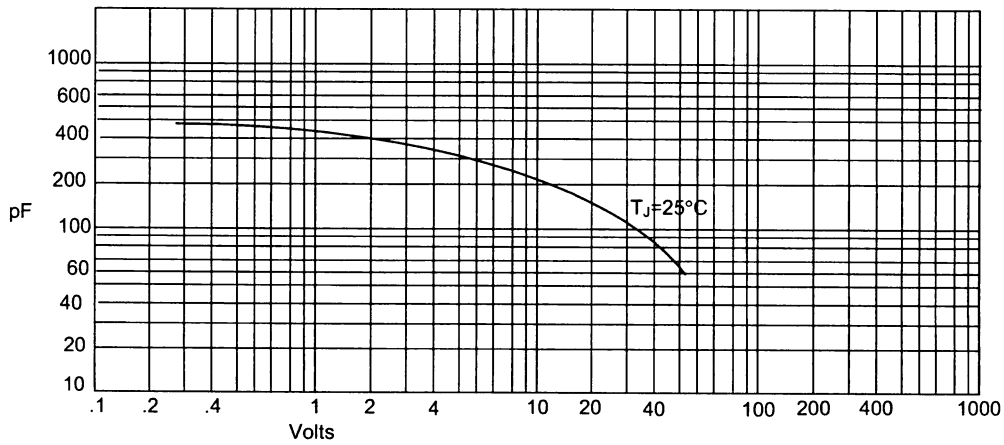
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

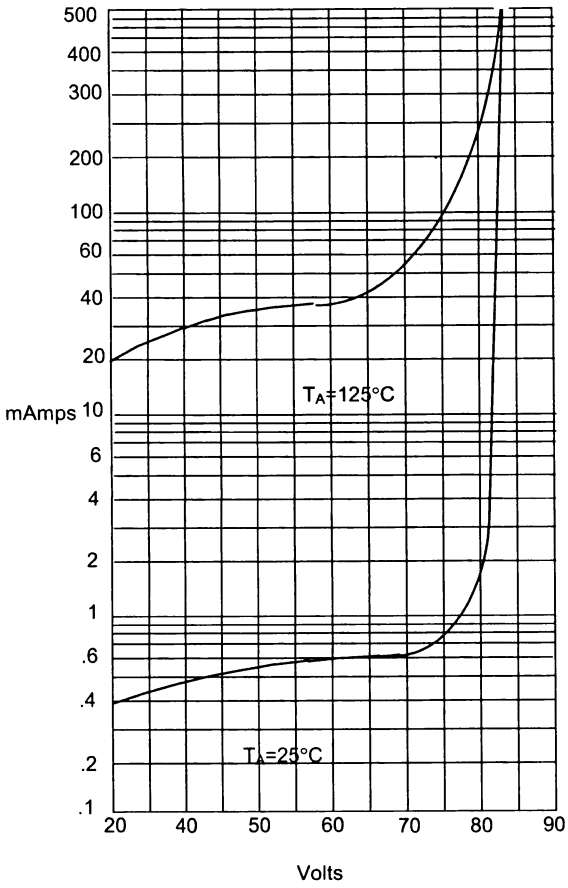
Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

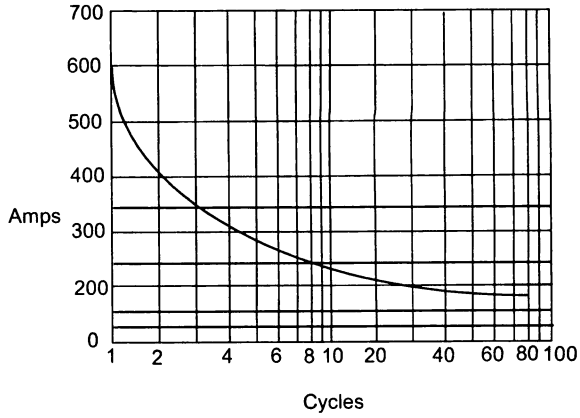
SD41

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