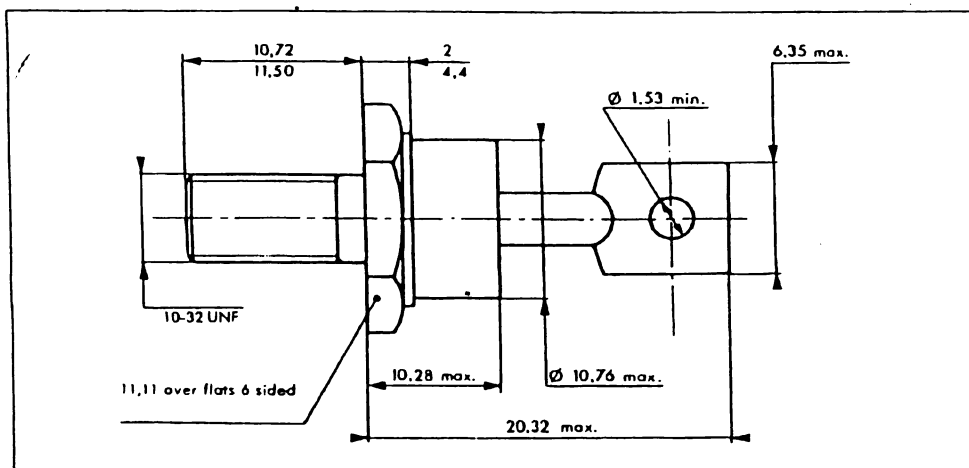


30 Amp Schottky Rectifier SD41 SD4145



D0203AA (D04)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SD41	35V	35V
SD4145	45V	45V

- Schottky Barrier Rectifier
- Low Forward Voltage
- VRRM – 35 & 45 Volts
- 30 Amperes

Electrical Characteristics

Average forward current	I _{F(AV)} 30 Amps	T _C = 140°C, Square wave, R _{θJC} = 1.6°C/W
Maximum surge current	I _{FSM} 600 Amps	8.3 ms, half sine T _J = 175°C
Max repetitive peak reverse current	I _{R(OV)} 2 Amps	f = 1 KHz, 25°C, 1 μsec Square wave
Max peak forward voltage	V _{FM} .57 Volts	I _{FM} = 30A: T _J = 175°C*
Max peak forward voltage	V _{FM} .68 Volts	I _{FM} = 30A: T _J = 25°C*
Max peak reverse current	I _{RM} 25 mA	V _{RRM} , T _J = 125°C*
Max peak reverse current	I _{RM} 1.5 mA	V _{RRM} , T _J = 25°C
Typical junction capacitance	C _J 1350 pF	V _R = 5.0V, T _J = 25°C

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T _{STG}	-55°C to 175°C
Operating junction temp range	T _J	-55°C to 175°C
Max thermal resistance	R _{θJC}	1.6°C/W Junction to case
Typical thermal resistance (greased)	R _{θCS}	0.5°C/W Case to sink
Mounting torque		12-15 inch pounds
Weight		0.2 ounces (6.0 grams) typical



SOLID STATE INC.

46 FARRAND STREET
BLOOMFIELD, NEW JERSEY 07003

www.solidstateinc.com

SD41, SD4145

Figure 1
Typical Forward Characteristics

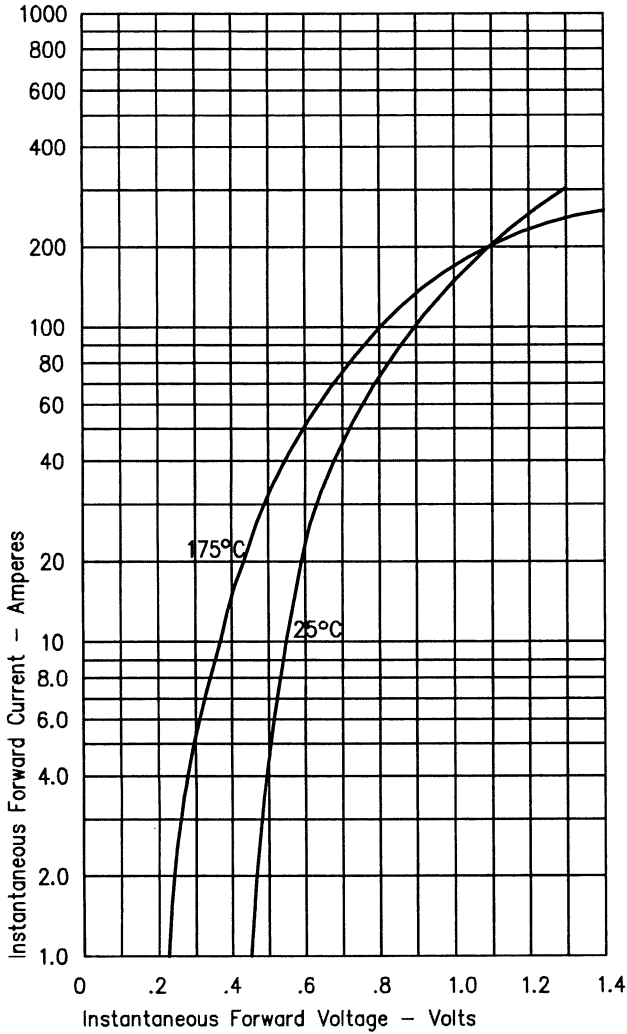


Figure 3
Typical Junction Capacitance

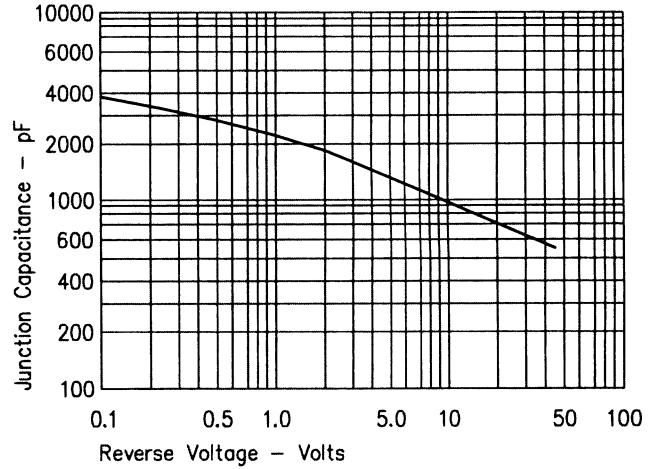


Figure 4
Forward Current Derating

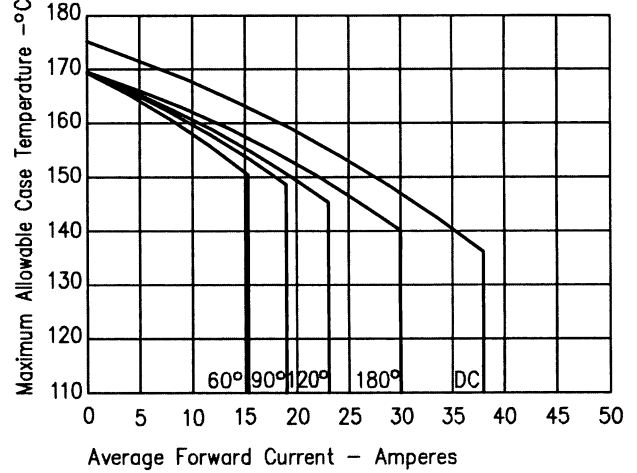


Figure 2
Typical Reverse Characteristics

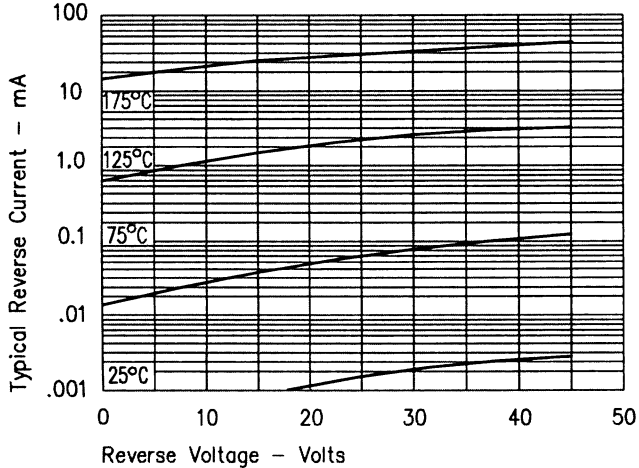


Figure 5
Maximum Forward Power Dissipation

