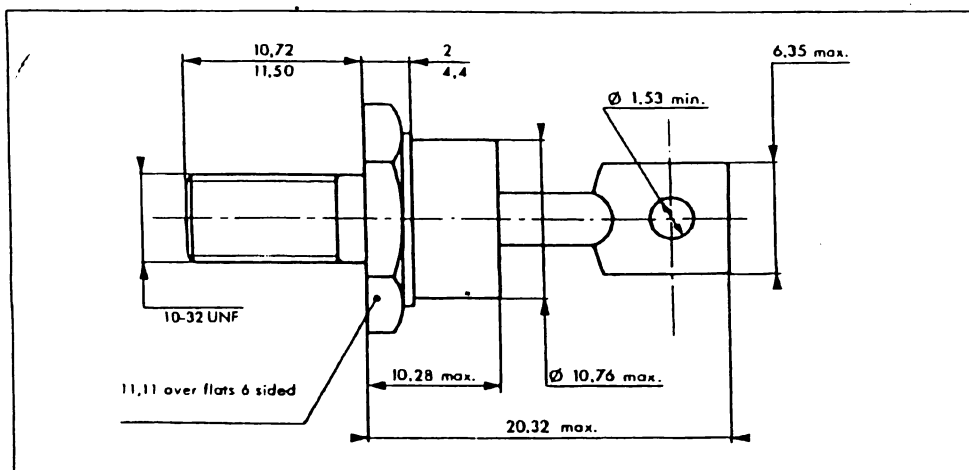


30 Amp Schottky Rectifier SD41 SD4145



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
- V_{RRM} - 35 & 45 Volts
- 30 Amperes

Electrical Characteristics

Average forward current	$I_F(AV)$ 30 Amps	$T_C = 140^\circ C$, Square wave, $R_{\theta JC} = 1.6^\circ C/W$
Maximum surge current	I_{FSM} 600 Amps	8.3 ms, half sine $T_J = 175^\circ C$
Max repetitive peak reverse current	$I_R(OV)$ 2 Amps	$f = 1$ KHz, $25^\circ C$, 1 μ sec Square wave
Max peak forward voltage	V_{FM} .57 Volts	$I_{FM} = 30A$: $T_J = 175^\circ C^*$
Max peak forward voltage	V_{FM} .68 Volts	$I_{FM} = 30A$: $T_J = 25^\circ C^*$
Max peak reverse current	I_{RM} 25 mA	V_{RRM} , $T_J = 125^\circ C^*$
Max peak reverse current	I_{RM} 1.5 mA	V_{RRM} , $T_J = 25^\circ C$
Typical junction capacitance	C_J 1350 pF	$V_R = 5.0V$, $T_J = 25^\circ C$

*Pulse test: Pulse width 300 μ sec, Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	$-55^\circ C$ to $175^\circ C$
Operating junction temp range	T_J	$-55^\circ C$ to $175^\circ C$
Max thermal resistance	$R_{\theta JC}$	$1.6^\circ C/W$ Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	$0.5^\circ C/W$ Case to sink
Mounting torque		12-15 inch pounds
Weight		0.2 ounces (6.0 grams) typical



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SD41, SD4145

Figure 1
Typical Forward Characteristics

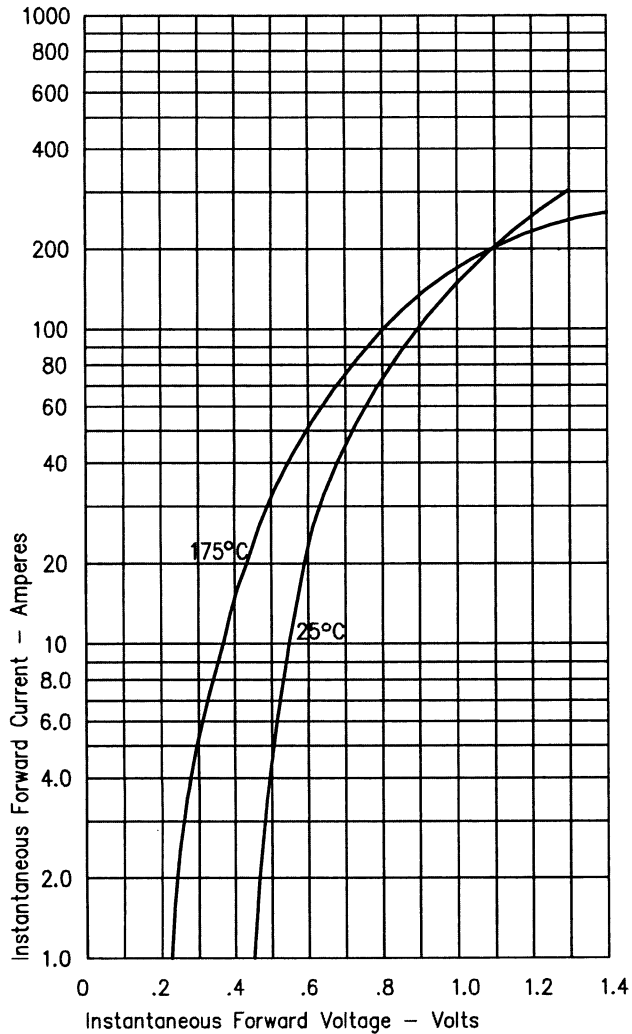


Figure 3
Typical Junction Capacitance

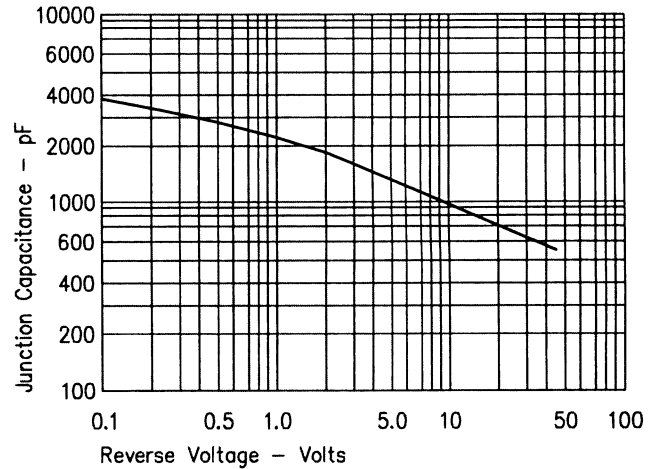


Figure 4
Forward Current Derating

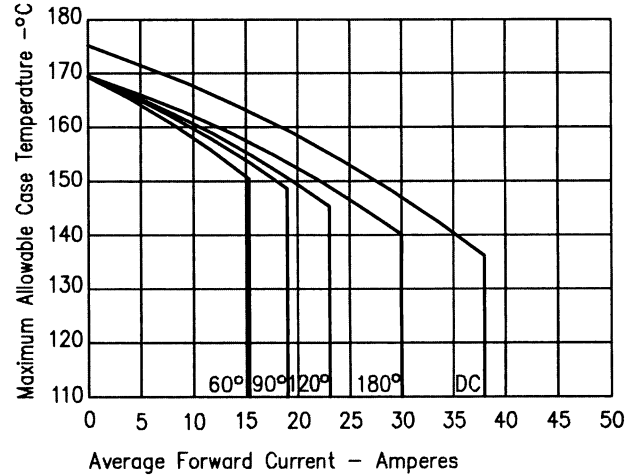


Figure 2
Typical Reverse Characteristics

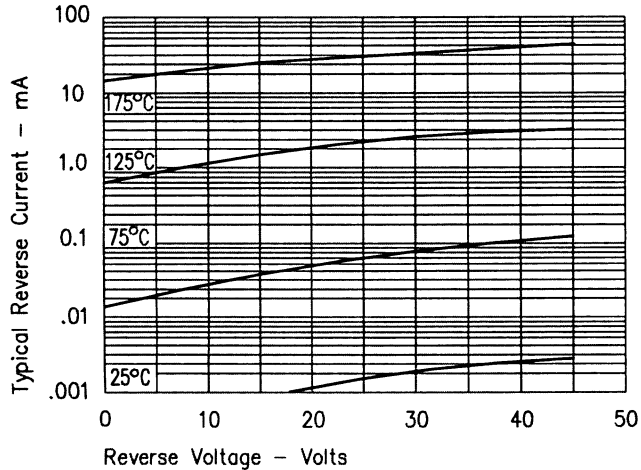


Figure 5
Maximum Forward Power Dissipation

