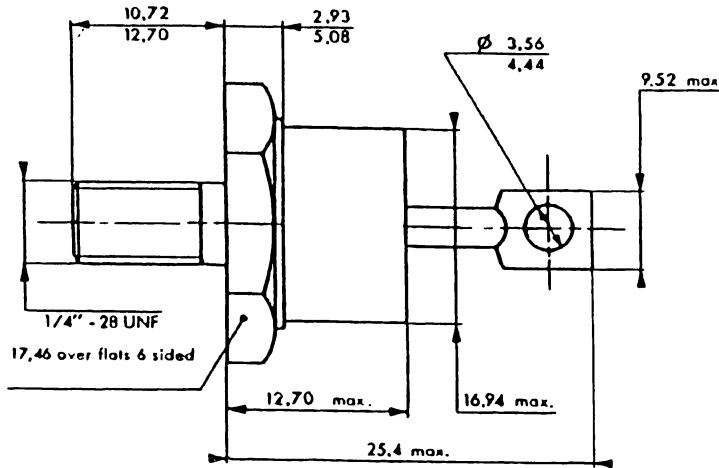


# 40 Amp Schottky Rectifier

## 1N5832 – 1N5834



D0-5

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N5832	20V	20V	24V
1N5833	30V	30V	36V
1N5834	40V	40V	48V

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 40 Amperes
- 125°C Junction Temperature
- $V_{RRM}$  20 to 40 Volts

### Electrical Characteristics

	1N5832	1N5833	1N5834	
Average forward current	$I_F(AV)$ 40A	40A	40A	$T_C = 100^\circ C$ , half sine wave, $R_{\theta JC} = 1.0^\circ C/W$ 8.3ms, half sine, $T_J = 125^\circ C$ $I_{FM} = 10A, T_J = 25^\circ C^*$ $I_{FM} = 40A, T_J = 25^\circ C^*$ $I_{FM} = 125A, T_J = 25^\circ C^*$ $V_{RRM}, T_J = 100^\circ C$ $V_{RRM}, T_J = 25^\circ C^*$ $T_J = 25^\circ C, V_R = 5V$
Maximum surge current	$I_{FSM}$ 800A	800A	800A	
Max peak forward voltage	$V_{FM}$ .360V	.370V	.380V	
Max peak forward voltage	$V_{FM}$ .520V	.550V	.590V	
Max peak forward voltage	$V_{FM}$ .980V	1.080V	1.180V	
Max peak reverse current	$I_{RM}$ 150mA	150mA	150mA	
Max peak reverse current	$I_{RM}$ 20mA	20mA	20mA	
Typical junction capacitance	$C_J$ 2200pF	2200pF	2200pF	

\*Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	-65°C to 175°C
Operating junction temp range	$T_J$	-65°C to 125°C
Max thermal resistance	$R_{\theta JC}$	1.0°C/W junction to Case
Max mounting torque		30 inch pounds maximum
Typical Weight		.54 ounces (15.3 grams) typical



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# 1N5832 — 1N5834

Figure 1  
Typical Forward Characteristics

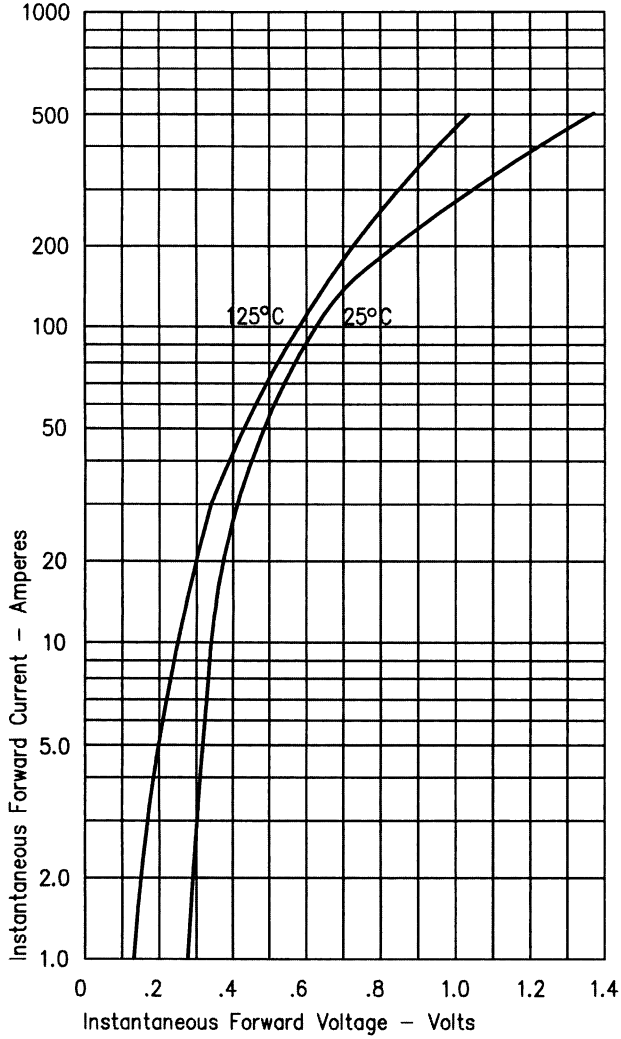


Figure 3  
Typical Junction Capacitance

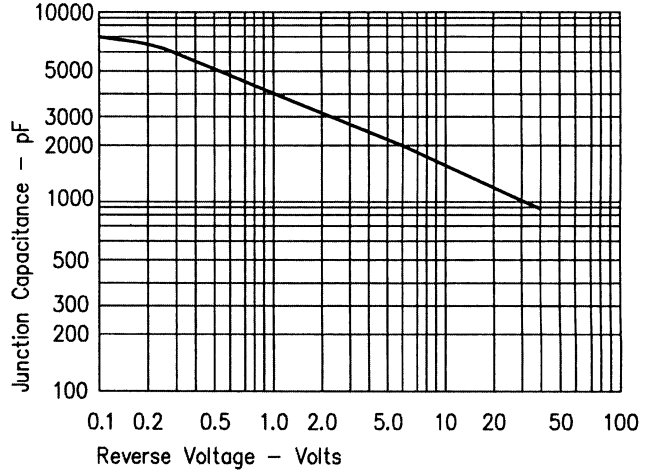


Figure 4  
Forward Current Derating

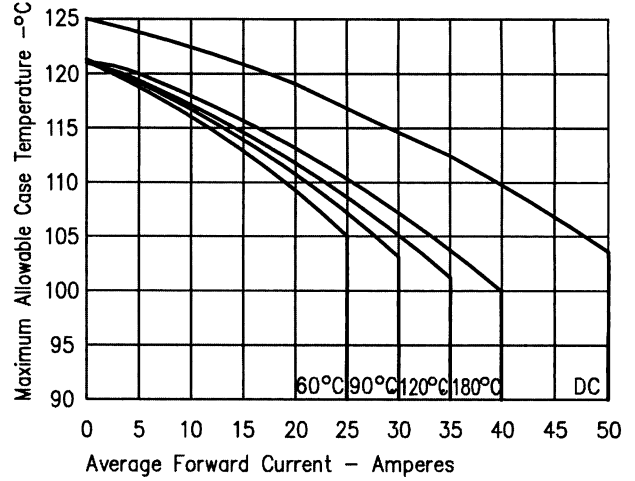


Figure 2  
Typical Reverse Characteristics

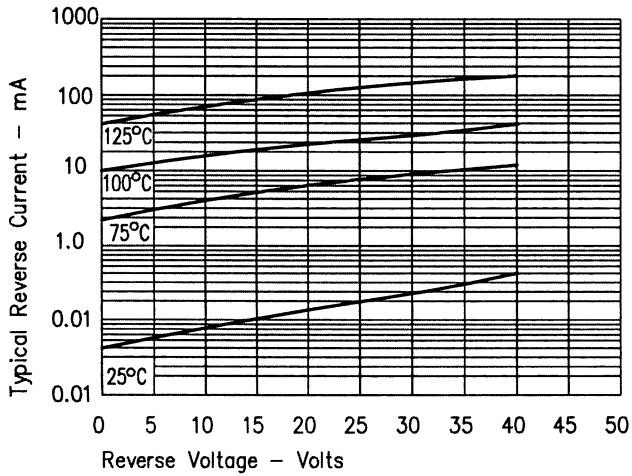


Figure 5  
Maximum Forward Power Dissipation

