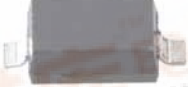
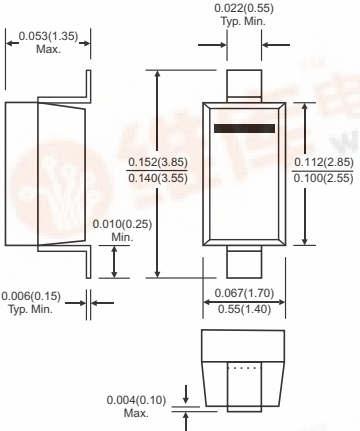
	<h2 style="margin: 0;">SD1002 THRU SD1006</h2> <h3 style="margin: 0;">1.0A Surface Mount Schottky Barrier Rectifier</h3>
	<p>Voltage Range 20 to 60 Volts 450m Watts Power Dissipation</p>
<p>Features</p> <ul style="list-style-type: none"> ✦ Schottky barrier chip ✦ Guard ring die construction for transient protection ✦ Low power loss, high efficiency ✦ High surge capability ✦ High current capability and low forward voltage drop ✦ For use in low voltage, high frequency inverters, free wheeling, and polarity protection application ✦ Plastic material: UL flammability Classification rating 94V-0 <p>Mechanical Data</p> <ul style="list-style-type: none"> ✦ Case: SOD-123, Plastic ✦ Leads: Solderable per MIL-STD-202, Method 208 ✦ Polarity: Cathode Band ✦ Marking: Date Code and Type Code or Date Code only Type Code: SL ✦ Weight: 0.01 grams (approx.) 	<p>SOD-123</p>  <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
<p>Maximum Ratings and Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.</p>	

Maximum Ratings

Type Number	Symbol	SD 1002	SD 1003	SD 1004	SD 1006	Units
Repetitive Peak Reverse Voltage	VRRM	20	30	40	60	V
Working Peak Reverse Voltage, @ IR=1.0mA	VRWM					
DC Blocking Voltage	VR					
RMS Reverse Voltage	VR(RMS)	28			42	V
Average Rectifier Output Current @ TL= 90°C	Io	1.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	IFSM	25				A
Power Dissipation (Note 2)	Pd	450				mW
Typical Thermal Resistance Junction to Ambient Air (Note 2)	RθJA	222				°C/W
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 125				°C

Electrical Characteristics

Forward Voltage (Note 1)	IF=1.0A	0.45	0.50	0.55	0.70	V
			Typ	Max		
Reverse Leakage Current (Note 1)	VR=40V, TA=25°C VR=40V, TA=100°C VR=4V, TA=25°C VR=4V, TA=100°C VR=6V, TA=25°C VR=6V, TA=100°C	-	10 1 15 1.5	50 2 75 3	1.0	mA mA uA mA uA mA
Junction Capacitance	VR=4V, f=1.0MHz	-	110			pF

Notes: 1. Pulse Test: Pulse width = 300 us, Duty Cycle ≤ 2%.

2. Valid Provided that Leads are Kept at Ambient Temperature at a Distance of 9.5mm from the case.





RATINGS AND CHARACTERISTIC CURVES (SD1002THRU SD1006)

FIG.1- FORWARD CURRENT DERATING CURVE

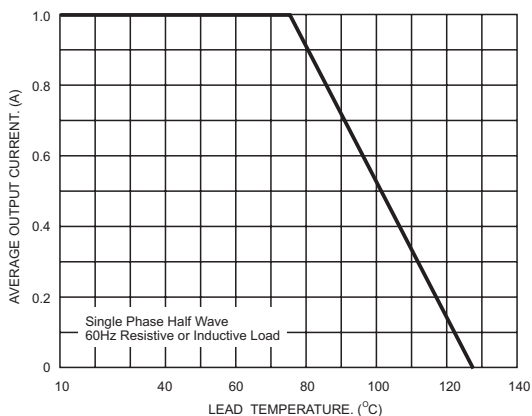


FIG.2-TYPICAL FORWARD CHARACTERISTICS

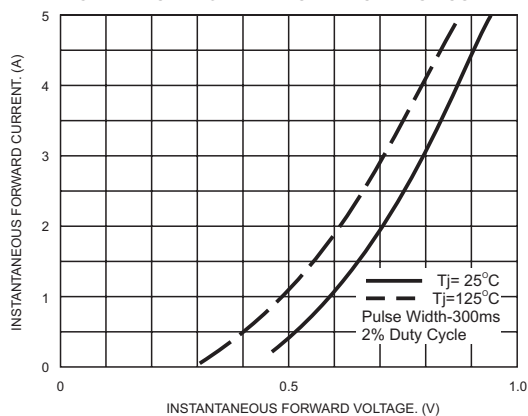


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

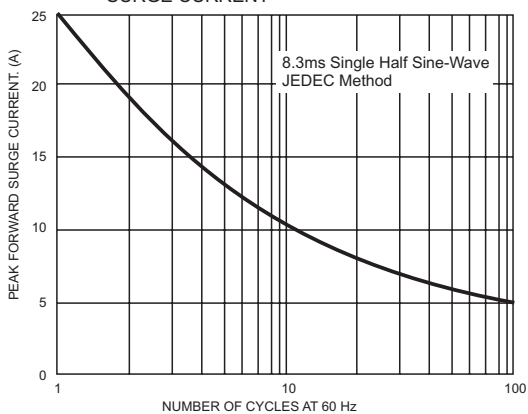


FIG.4- TYPICAL JUNCTION CAPACITANCE

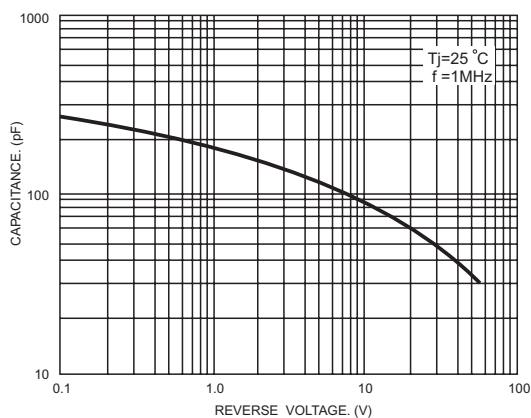


FIG.5- TYPICAL SAFE OPERATING AREA

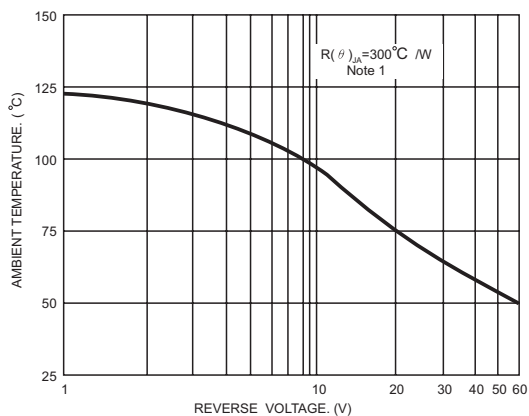


FIG.6- TYPICAL REVERSE CHARACTERISTICS

