



MILLERSEMI

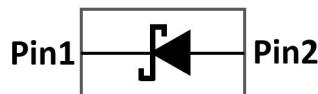
**MS1F140**

Schottky Barrier Rectifiers

## 1. General Description



SOD-123FL



Circuit diagram



Marking(Top View)

## 2. Specification Features

- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
- 250 °C/10 seconds at terminals

## 3. Application

- Low voltage, high frequency inverters
- polarity protection applications

## 4. Maximum Ratings & Thermal Characteristics

Parameters	Symbol	Limit	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	
Maximum DC blocking voltage	$V_{DC}$	40	
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.0	A
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.55	V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	0.5	
		50	mA
Peak forward surge current 8.3 ms single half sine-wave	$I_{FSM}$	30	A
Thermal Resistance Junction to Ambient	$R_{\theta,JA}$	85	°C/W
Operating junction temperature	$T_j$	-50 ~ +125	°C
Storage temperature range	$T_{stg}$	-50 ~ +150	



MILLERSEMI

**MS1F140**

## 5. Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

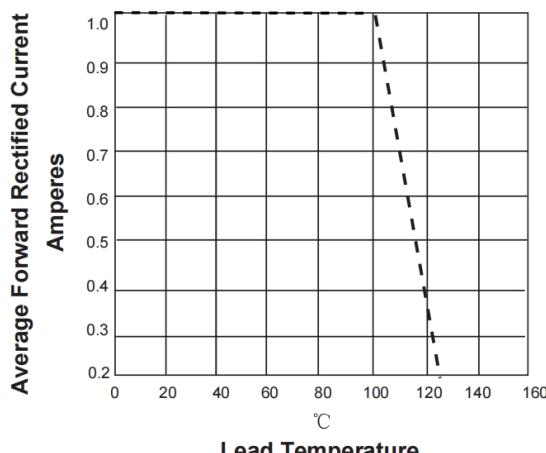


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

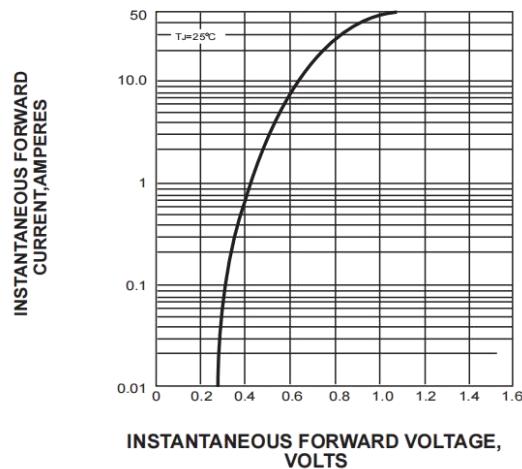


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

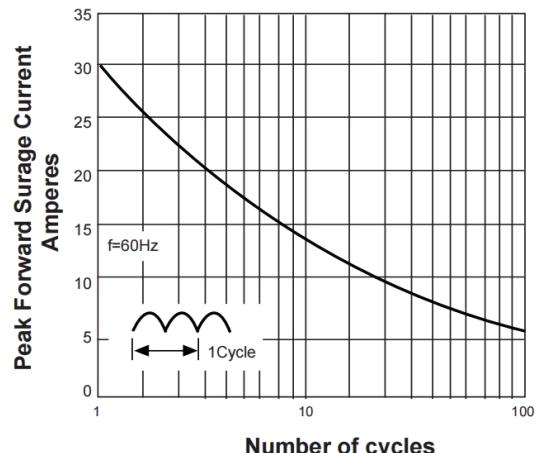
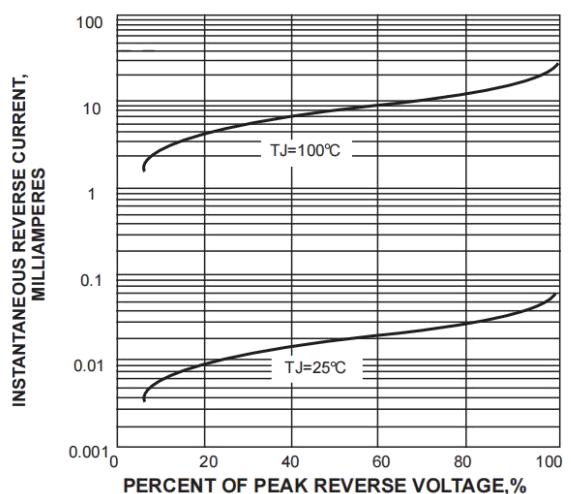
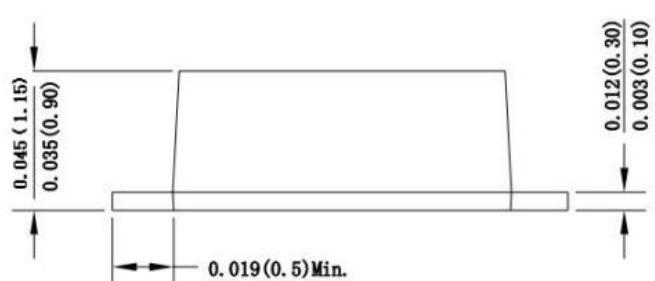
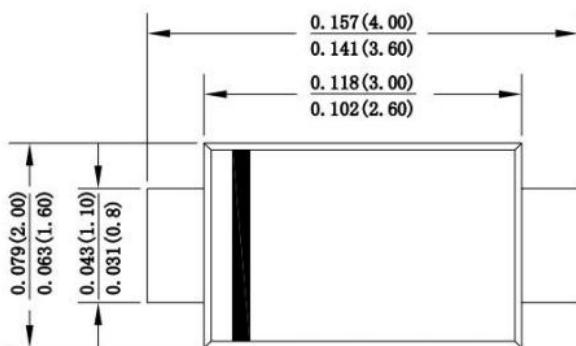


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



## 6. Package Outline Dimensions

Device Marking	Device	Package	Reel size	Tape width	Quantity
阴极线 14A	MS1F140	SOD-123FL	7inch	8mm	3000





## 7. RESTRICTIONS ON PRODUCT USE

- The information contained herein is subject to change without notice.
- Miller semiconductor Co., Ltd. exerts the greatest possible effort to ensure high quality and reliability. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing Miller semiconductor products, to comply with the standards of safety in making a safe design for the entire system, including redundancy, fire-prevention measures, and malfunction prevention, to prevent any accidents, fires, or community damage that may ensue. In developing your designs, please ensure that Miller semiconductor products are used within specified operating ranges as set forth in the most recent Miller semiconductor products specifications.
- The Miller semiconductor products listed in this document are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.). These Miller semiconductor products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury ("Unintended Usage"). Unintended Usage include atomic energy control instruments, airplane or spaceship instruments, transportation instruments, traffic signal instruments, combustion control instruments, medical instruments, all types of safety devices, etc.. Unintended Usage of Miller semiconductor products listed in this document shall be made at the customer's own risk.