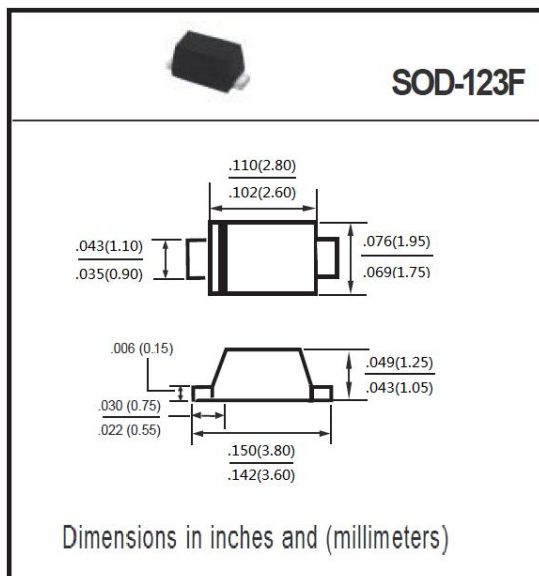


表面安装超快速整流二极管
反向电压**50 --- 1000 V**
正向电流**1.0A**

Surface Mount Rectifiers
Reverse Voltage **50 to 1000 V**
Forward Current **1.0A**



特征 Features

- 低的反向漏电流 Low reverse leakage
- 玻璃钝化芯片 Glass passivated chip junction
- 较强的正向浪涌承受能力 High forward surge capability
- 高温焊接保证 260℃/10秒 High temperature soldering guaranteed: 260℃/10 seconds at terminals
- 引线 and 管体皆符合 RoHS 标准。Lead and body according with RoHS standard
- AEC-Q101 qualified

机械数据 Mechanical Data

- 封装: 塑料封装 Case: Molded plastic body
- 端子: 焊料被镀 Terminals: Solder plated
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性 $T_A = 25^\circ\text{C}$ 除非另有规定。

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	SM 4001PL	SM 4002PL	SM 4003PL	SM 4004PL	SM 4005PL	SM 4006PL	SM 4007PL	Unit
最大反向峰值电压 Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
最大反向有效值电压 Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
最大正向平均整流电流 Maximum average forward rectified current	$I_{F(AV)}$	1.0							A
正向峰值浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	25							A
最大反向峰值电流 @ $T_A = 75^\circ\text{C}$ Maximum peak reverse current full cycle	$I_{R(AV)}$	30							μA
典型热阻 Typical thermal resistance	$R_{\theta JA}$	150							$^\circ\text{C}/\text{W}$
工作结温和存储温度 Operating junction and storage temperature range	T_J, T_{STG}	-50---+150							$^\circ\text{C}$

电特性 $T_A = 25^\circ\text{C}$ 除非另有规定。

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	SM 4001PL	SM 4002PL	SM 4003PL	SM 4004PL	SM 4005PL	SM 4006PL	SM 4007PL	Unit
最大正向电压 $I_F = 1.0\text{A}$ Maximum forward voltage	V_F	1.10							V
最大反向漏电流 $T_A = 25^\circ\text{C}$ Maximum reverse current $T_A = 100^\circ\text{C}$	I_R	5.0 50							μA
典型结电容 $V_R = 4.0\text{V}, f = 1\text{MHz}$ Type junction capacitance	C_J	15							pF

特性曲线 CHARACTERISTIC CURVES

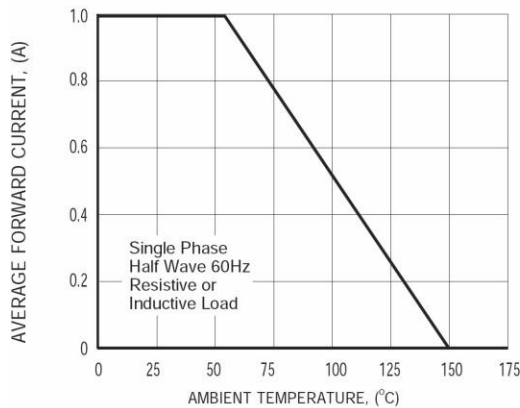


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

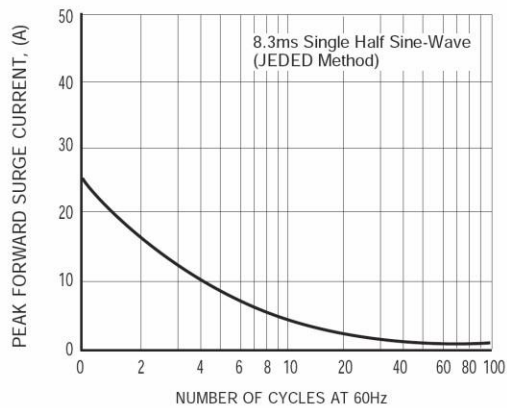


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

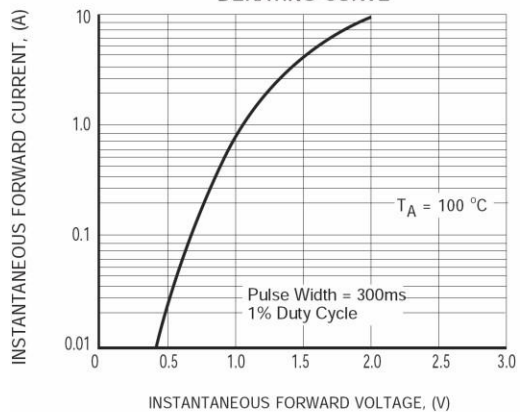


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

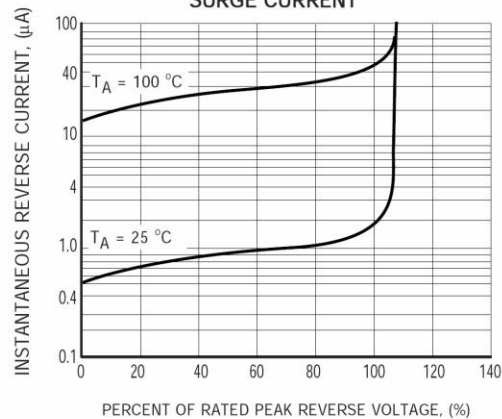


FIG.4 TYPICAL REVERSE CHARACTERISTICS

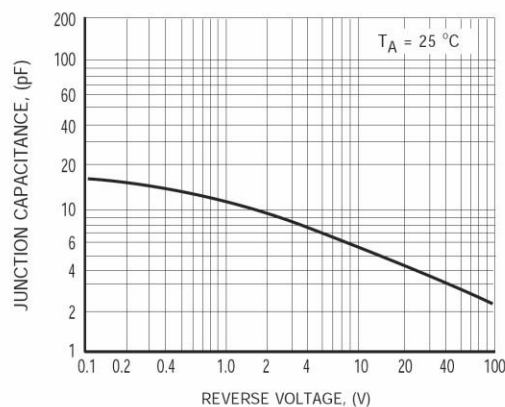
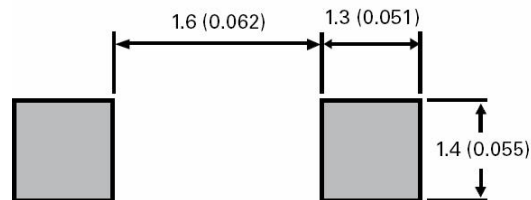


FIG.5 TYPICAL JUNCTION CAPACITANCE

Mounting Pad Layout



Packing

Part number	Component Package	Quantity	Packaging Option
SM4001PL-SM4007PL	SOD-123F	3000	Tape & Reel – 8mm/7" tape
		10000	Tape & Reel – 8mm/13" tape

Tape and Reel Specification

