

**描述 / Descriptions**

SOT-23 塑封封装 硅半导体二极管。

Silicon Diode in a SOT-23 Plastic Package.

**特征 / Features**

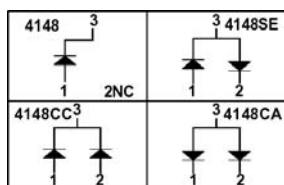
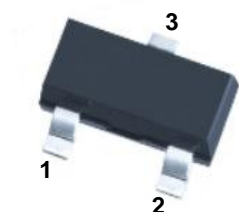
开关速度快，高导电率。无卤产品。

Fast Switching, High Conductance. HF Product.

**用途 / Applications**

用于小信号处理。

Small signal diode.

**内部等效电路 / Equivalent Circuit****引脚排列 / Pinning**

PIN: See Equivalent Circuit.

**放大及印章代码 /  $h_{FE}$  Classifications & Marking**

Type	MMBD4148	MMBD4148SE	MMBD4148CC	MMBD4148CA
Marking	H5H	HD4	HD5	HD6

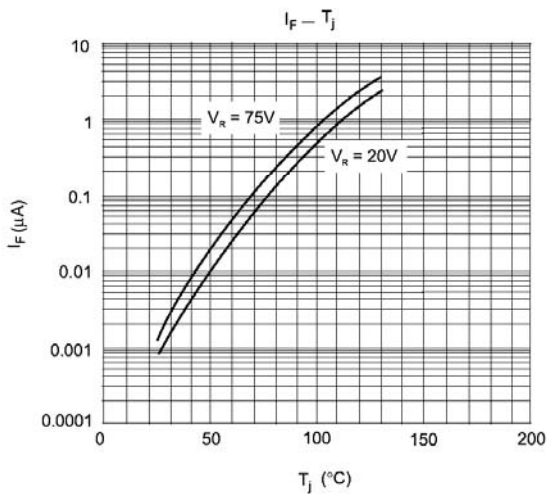
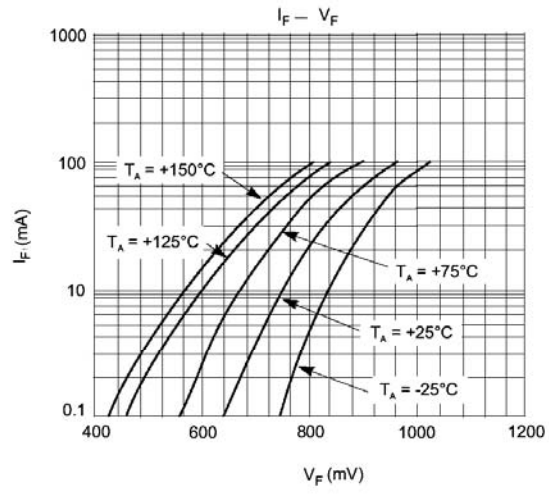
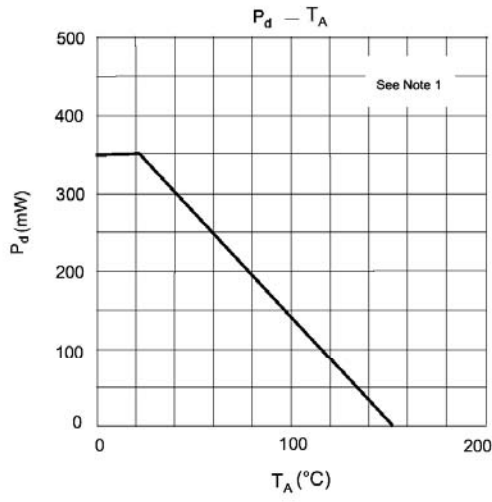
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}(PW=1.0S)$	1.0	A
Non-repetitive Peak Forward Surge Current	$I_{FSM}(PW=1.0\mu S)$	2.0	A
Power Dissipation	PC	350	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

**电性能参数 / Electrical Characteristics(Ta=25°C)**

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Breakdown Voltage	$V_R$	$I_R=5.0\mu A$	75			V
		$I_R=100\mu A$	100			V
Forward Voltage	$V_F$	$I_F=10mA$			1.0	V
Instantaneous Reverse Current	$I_R$	$V_R=20V$			25	nA
		$V_R=20V$ $T_A=150^\circ C$			50	$\mu A$
		$V_R=75V$			5.0	$\mu A$
Total Capacitance	$C_T$	$V_R=0$ $f=1.0MHz$			4.0	pF
Reverse Recovery Time	$t_{rr}$	$I_F=10mA$ $V_R=6.0V$ $I_{RR}=1.0mA$ $R_L=100\Omega$			4.0	ns

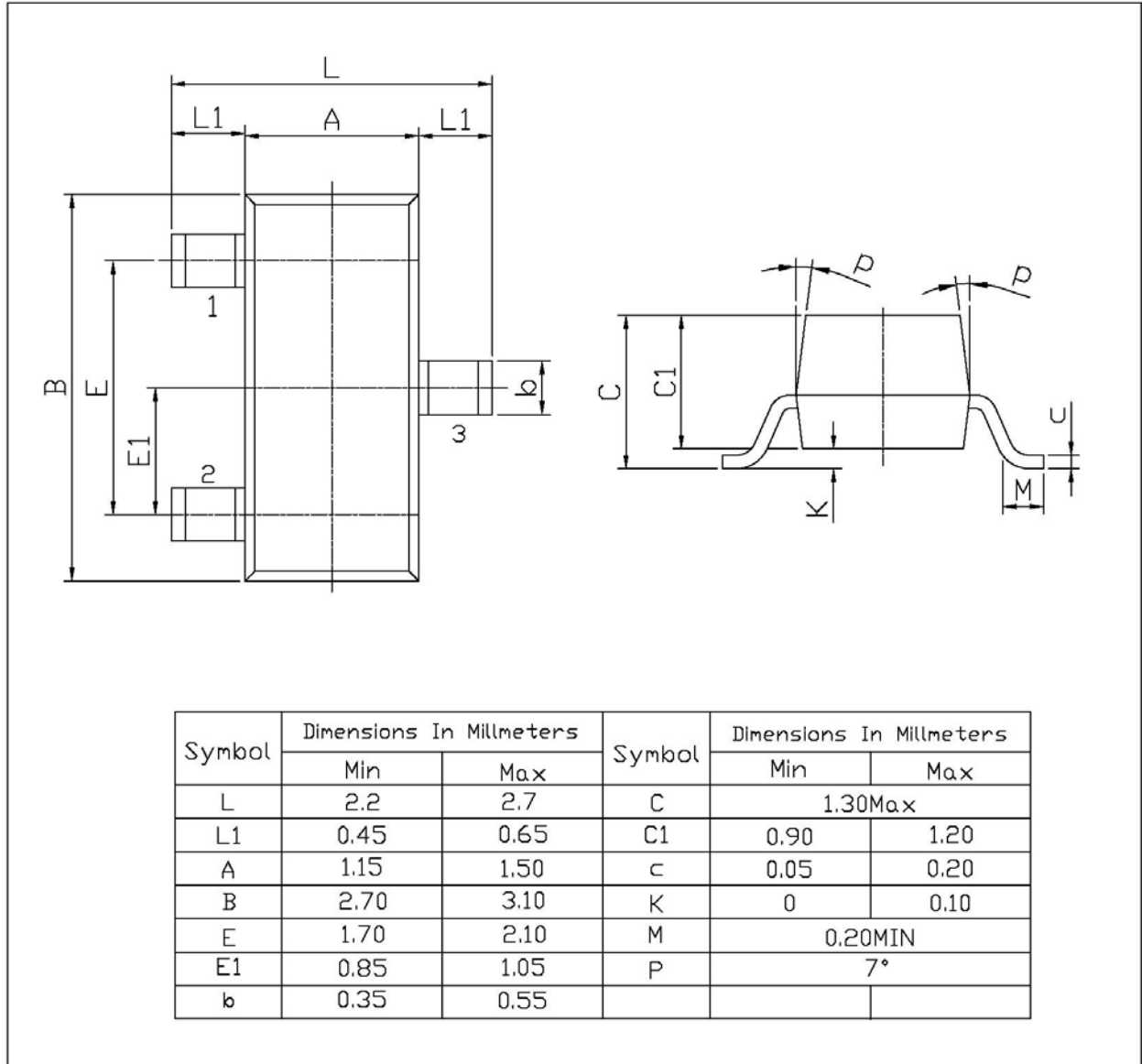
电参数曲线图 / Electrical Characteristic Curve



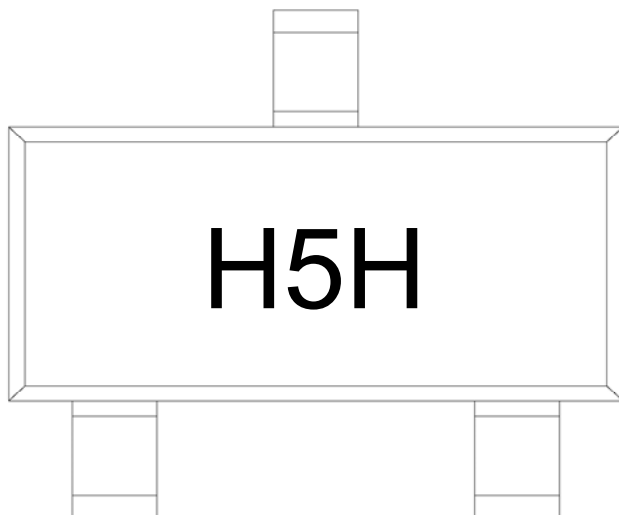
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

H： 为公司代码

5H： 为型号代码

Note:

H: Company Code.

5H: Product Type.

**回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度：260±5°C      时间：10±1 sec.      Temp.:260±5°C      Time:10±1 sec

**包装规格 / Packaging SPEC.**

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-23	3,000	10	30,000	8	240,000	7" ×8	180×120×180	385×257×392

**使用说明 / Notices**