

Marking: M5C

**特征 Features**

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 最大功率耗散 225mW; Power Dissipation of 225mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

**机械数据 Mechanical Data**

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25℃ 除非另有规定)

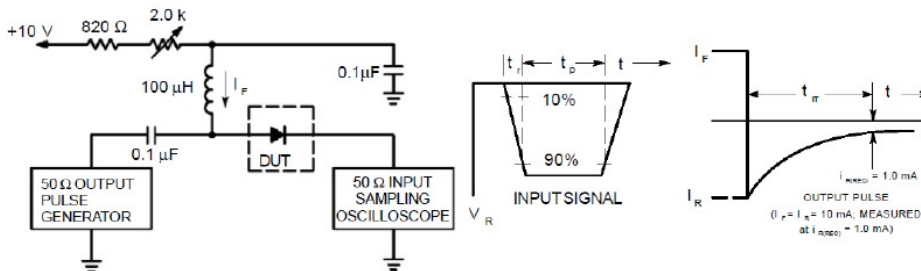
**Maximum Ratings & Thermal Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向电压 Reverse Voltage	VR	100	V
反向峰值电压 Peak Repetitive Reverse Voltage	VRRM	100	V
功率消耗 Power Dissipation	Pd	225	mW
正向峰值浪涌电流 Peak Forward Surge Current	IFM	500	mA
工作结温 Operating junction temperature	Tj	150	℃
存储温度 Storage temperature range	Ts	-55-+150	℃
热阻抗 Thermal Resistance from Junction to Ambient	RθJA	417	℃/W

Valid provided that electrodes are kept at ambient temperature.

电特性 **Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
V(BR)	反向电压 Reverse Voltage	IR=100uA	100		V
IR	反向漏电流 Reverse Leakage Current	VR=100V	---	3.0	uA
		VR=50V	---	1	uA
VF	正向电压 Forward Voltage	IF=1mA	---	0.72	V
		F=10mA	---	0.82	
		F=100mA	---	1.10	
TRR	反向恢复时间 Reverse Recovery Time	IF= IR=10mA	---	4	nS
		VR=6V,RL=100Ω			
		IRR=0.1 X IR			
CT	结电容 Capacitance	VR=0V, f=1MHZ	---	1.5	pF



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (IF) of 10mA.
2. Input pulse is adjusted so IR(peak) is equal to 10mA.
3. tdi » tr

**Recovery Time Equivalent Test Circuit**

Typical Characteristics

Fig.1 Typical Forward Characteristics

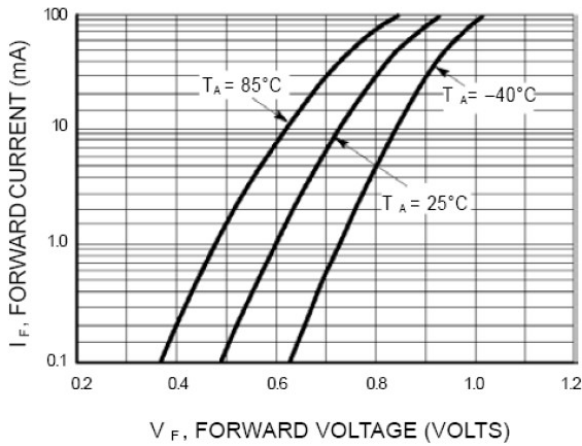


Fig.2 Typical Reverse Characteristics

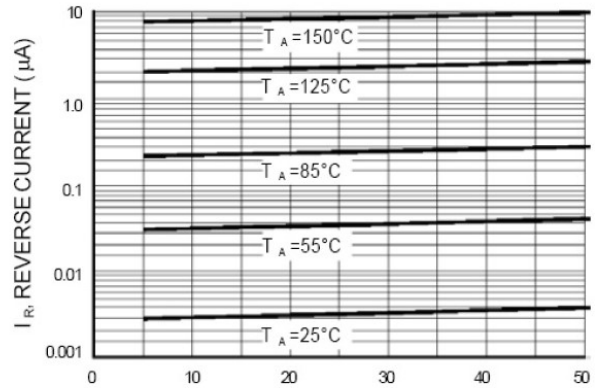
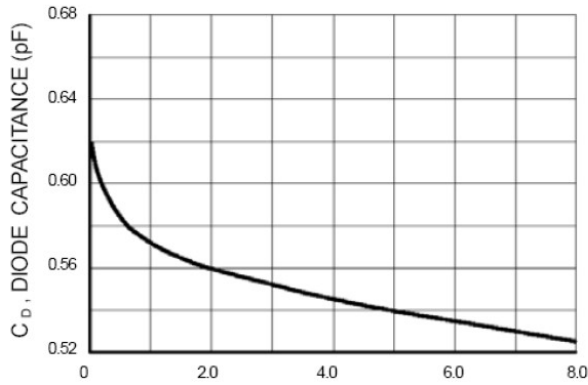
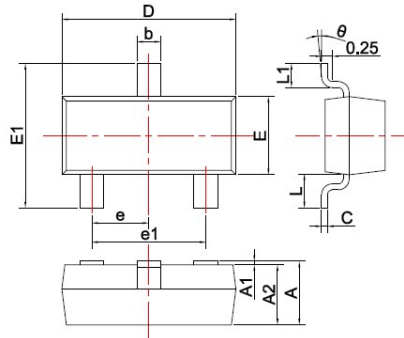


Fig.3 Typical Capacitance Characteristics



SOT-23 PACKAGE OUTLINE

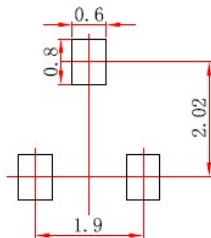
Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.600	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
$\theta$	0°	8°

Unit: mm

焊盘设计参考 Precautions: PCB Design (Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.