

Description

The SM24-02HTG-CN is designed for applications requiring transient over voltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

Package outline

Features

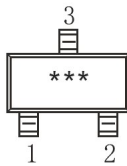
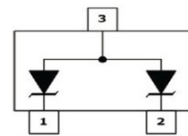
- IEC61000-4-2(ESD) $\pm 15\text{kV}(\text{air})$, $\pm 8\text{kV}(\text{contact})$
- IEC61000-4-4(EFT) 40A(5/50 ns)
- 350Watts Peak Pulse Power per (tp=8/20us)
- Protects one bidirectional line or two unidirectional lines
- Low clamping voltage
- Working voltages: 3.3 to 36V
- Low leakage current

Ordering Information

- Device: SM24-02HTG-CN
- Package: SOT-23
- Material: Halogen free
- Packing: Tape & Reel
- Quantity per reel: 3,000pcs

Mechanical Data

- SOT-23 Package
- Flammability Rating: UL 94V-0
- High temperature soldering guaranteed: 260°C/10s

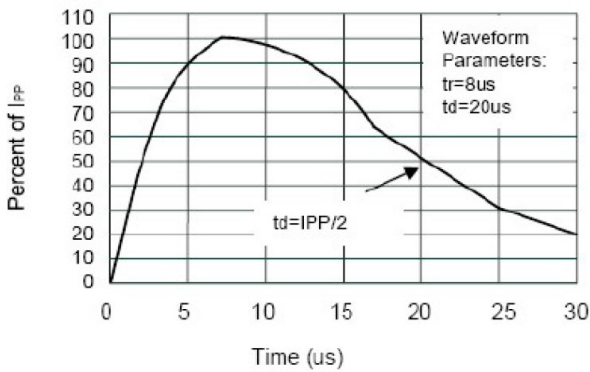
Marking code

Pin Configuration

ABSOLUTE MAXIMUM RATING

Parameters	Symbol	Value	Unit
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	± 15 ± 8	KV
Peak Pulse Power (8/20us)	PPP	350	W
Operating temperature	T_{OPT}	-55-+150	°C
Storage temperature range	T_{STG}	-55-+150	°C
Forward Voltage@100mA, s00us-square wave (Applies to unidirectional pins only)	V_F	1.5	V

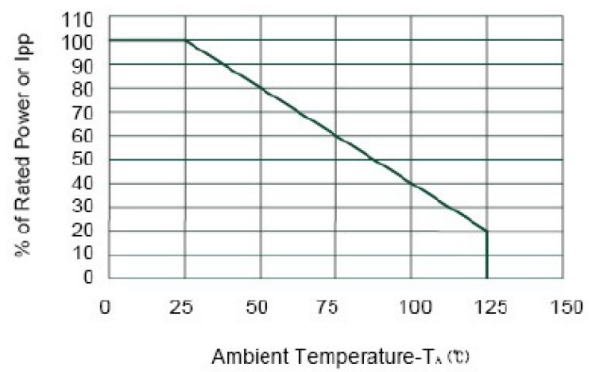
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

PART NUMBER (Note 1)	DEVICE MARKING	VRWM (V) (max.)	VB (V) (min.)	IT (mA)	$V_C@1A$ (V) (max.)	V_C (V) (max.) (@A)	IR (uA) (max.)	CT (pF) (max.)	
SM24-02HTG-CN	M24	24	26.7	1	43	52	7	1	80

ELECTRICAL CHARACTERISTICS CURVE

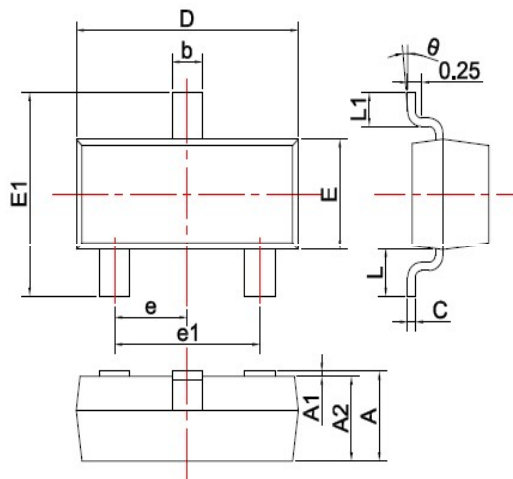


Pulse Waveform



Power Derating Curve

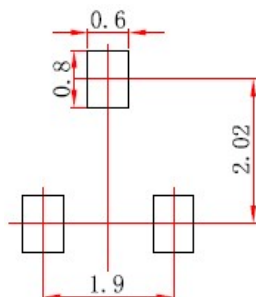
SOT-23 PACKAGE OUTLINE Plastic surface mounted package



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	2.800	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
θ	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: ± 0.05mm.
 3. The pad layout is for reference purposes only.

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