

/ Revised record

E	2016-3				
F	2021-5-26	1			

/ Descriptions

SOT-23

Silicon Diode in a SOT-23 Plastic Package.

/ Features

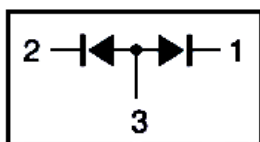
450mA

Small package, double diode, high switching speed, high repetitive peak reverse voltage, repetitive peak forward current up to 450mA. HF Product.

/ Applications

High-speed switching in thick and thin-film circuits..

/ Equivalent Circuit



/ Pinning



PIN: See Equivalent Circuit.

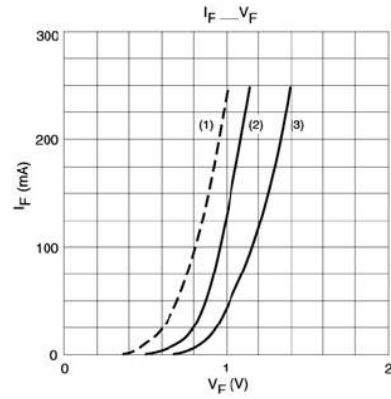
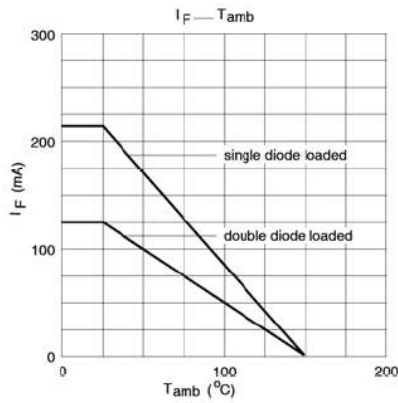
/ hFE Classifications & Marking

Marking	HA1
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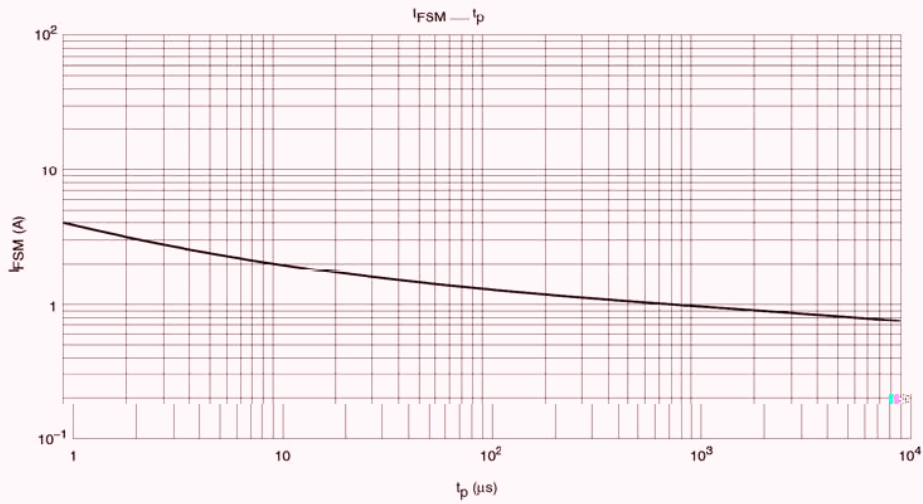
Parameter	Symbol	Rating	Unit
Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_F(\text{single diode loaded})$	215	mA
	$I_F(\text{double diode loaded})$	125	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM(1)}(t=1\mu S)$	4.0	A
	$I_{FSM(2)}(t=1mS)$	1.0	A
	$I_{FSM(3)}(t=1S)$	0.5	A
Power Dissipation	P_{tot}	250	mW

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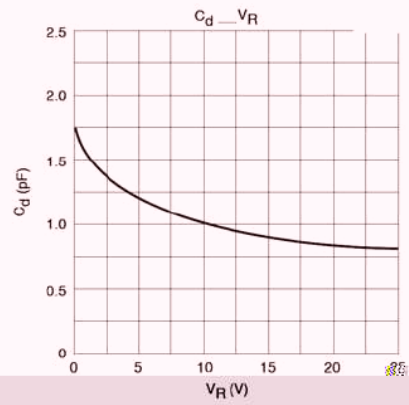
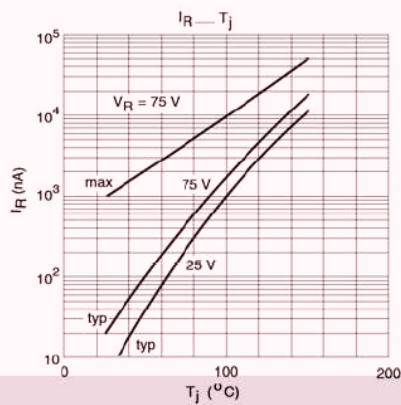
/ Electrical Characteristic Curve



(1) $T_j = 150^\circ\text{C}$; typical values
 (2) $T_j = 25^\circ\text{C}$; typical values.
 (3) $T_j = 25^\circ\text{C}$; maximum values

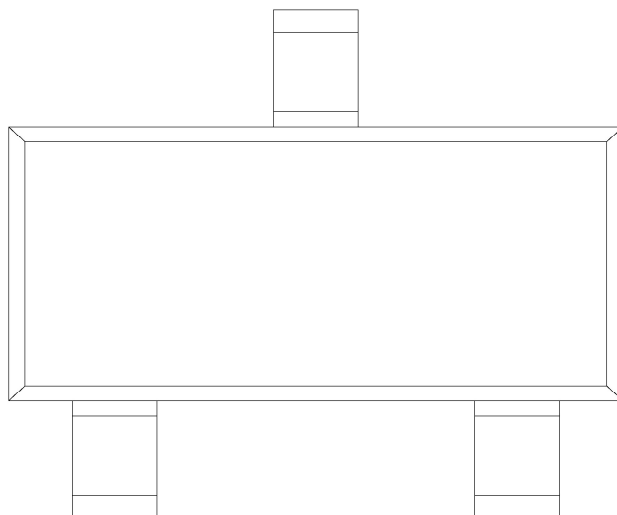


Based on square wave currents.
 $T_j = 25^\circ\text{C}$ prior to surge.

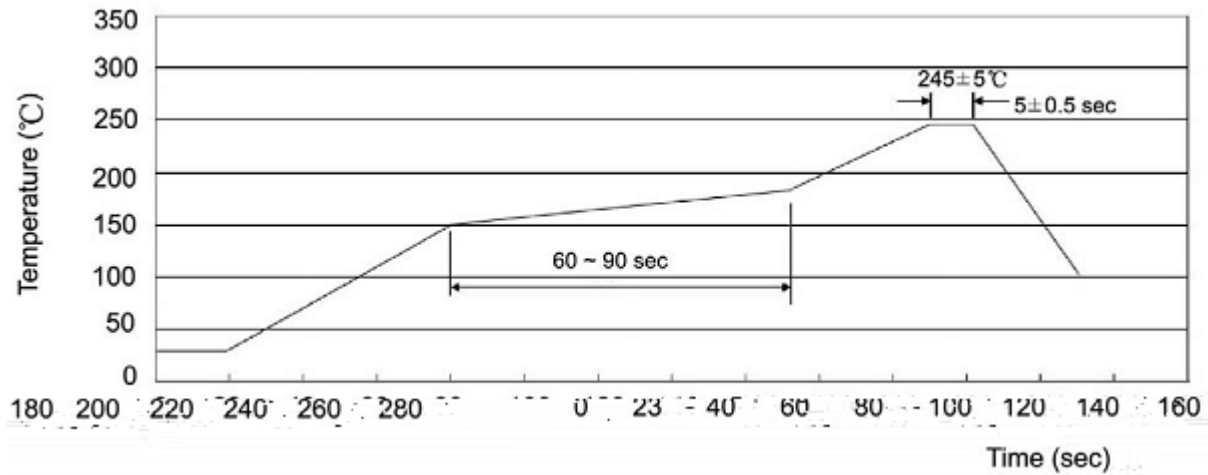


$f = 1\text{ MHz}$; $T_j = 25^\circ\text{C}$.

/ Marking Instructions



() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

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

/ Resistance to Soldering Heat Test Conditions

260±5

10±1 sec.

Temp.:260±5°C

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	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	6	180,000	7" x8	180×120×180	390×385×205

/ Notices