

Features

- Small surface mounting type.
- Small package.
- Low forward voltage: $V_F=0.23V(\text{typ})$.

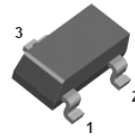
HF

Typical Applications

- For general purpose applications.

Mechanical Data

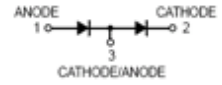
- Case: SOT-23 , SOT-323
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.



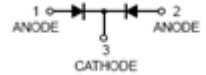
1SS374
SOT-23



1SS372
SOT-323



1SS378
SOT-323



Ordering Information

Part Number	Package	Shipping	Marking Code
1SS374	SOT-23	3000 pcs / Tape & Reel	N9
1SS372	SOT-323	3000 pcs / Tape & Reel	N9
1SS378	SOT-323	3000 pcs / Tape & Reel	N8

Maximum Ratings (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Units
Maximum (Peak) Reverse Voltage	V_{RM}	15	V
Reverse Voltage	V_R	10	V
Average Forward Current	I_O	100	mA
Maximum (Peak) Forward Current	I_{FM}	200	mA
Surge Current (10ms)	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	1SS374	1SS372	1SS378	Units
Power Dissipation	P_D	150	100		mW
Typical Thermal Resistance per leg	$R_{\theta JA}^*$	667	1000		$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	125			$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150			$^{\circ}\text{C}$

* Part mounted on FR-4 board with recommended pad layout

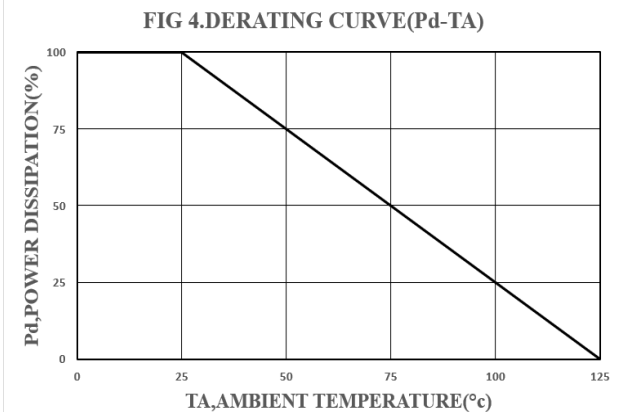
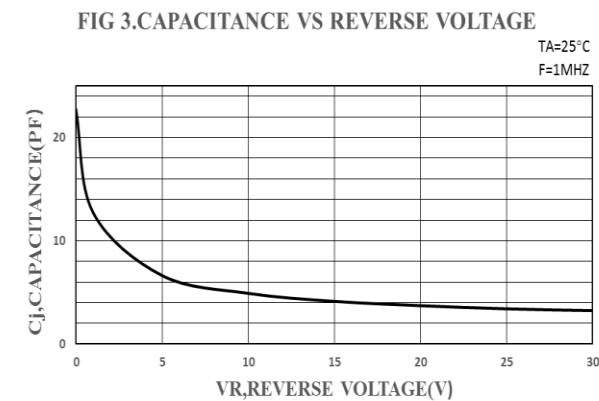
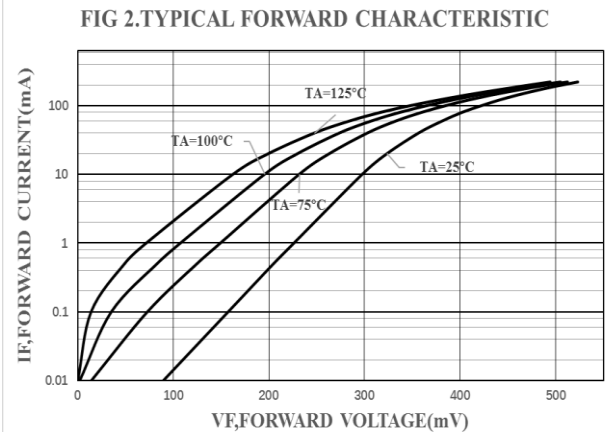
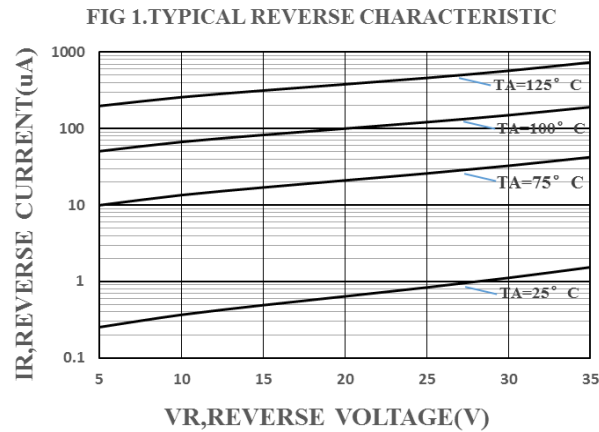
Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=1\text{mA}$	-	0.18	-	V
		$I_F=5\text{mA}$	-	0.23	0.30	
		$I_F=100\text{mA}$	-	-	0.50	
Reverse Current	I_R^{**}	$V_R=10\text{V}$	-	-	20	μA
Capacitance Between Terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$	-	20	40	pF

*Pulse width $\leq 380\text{ }\mu\text{s}$, Duty cycle $< 2\%$

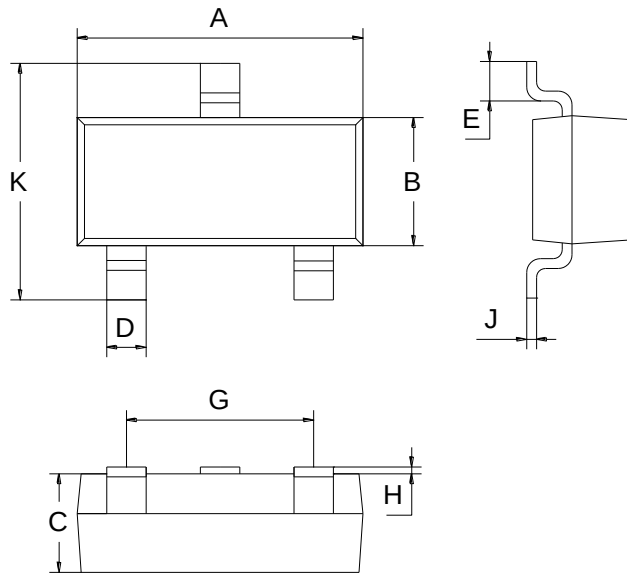
**pulse test, $t_p \leq 5\text{ms}$

Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)



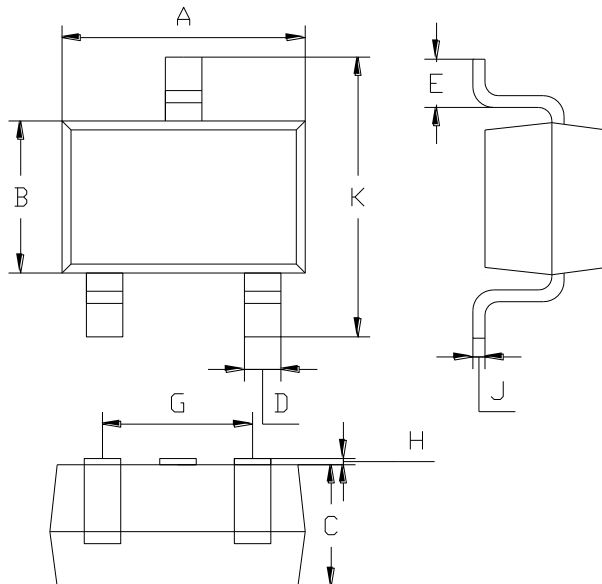
Package Outline Dimensions(unit:mm)

SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

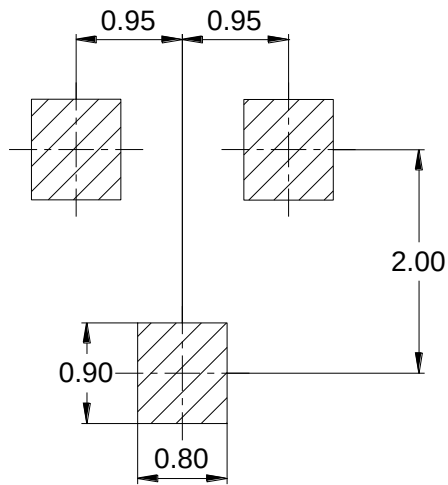
SOT-323



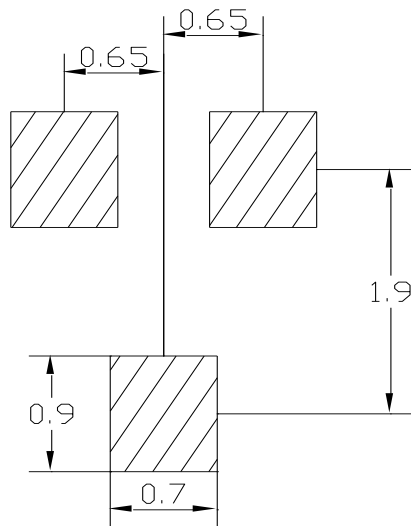
SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout(unit:mm)

SOT-23



SOT-323



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