

Surface mount switching diode

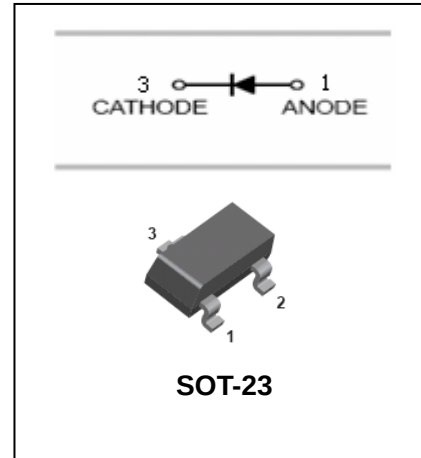
1SS193

FEATURES

- Low forward voltage
 $V_{F(3)}=0.9V(\text{typ})$.
- Fast switching.
- Fast reverse recovery time: $t_{rr}=1.6ns(\text{typ})$



Lead-free



SOT-23

APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
1SS193	F3	SOT-23

MAXIMUM RATING @ Ta=25 °C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	85	V
DC Reverse Voltage	V_R	80	V
Forward Current(max)	I_{FM}	300	mA
Forward Output current	I_o	100	mA
Surge current	I_{FSM}	2	A
Power Dissipation	P_d	150	mW
Operating Junction Temperature Range	T_j	125	°C
Storage Temperature Range	T_{STG}	-55 to +125	°C

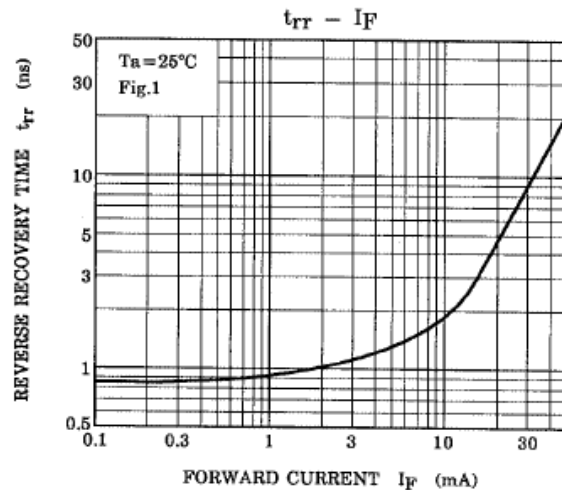
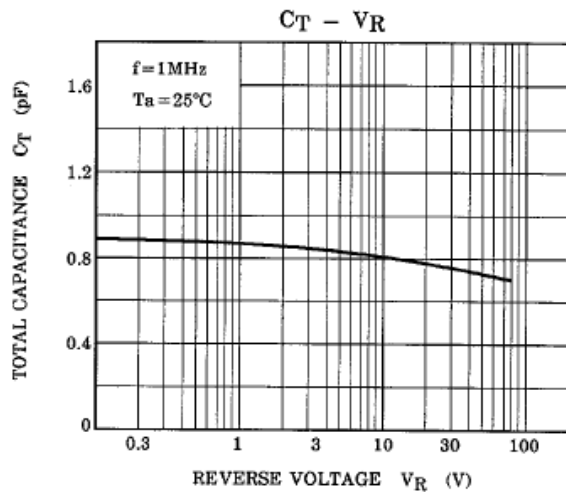
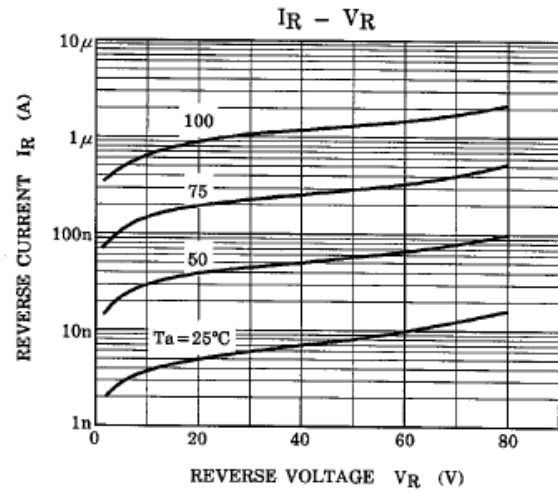
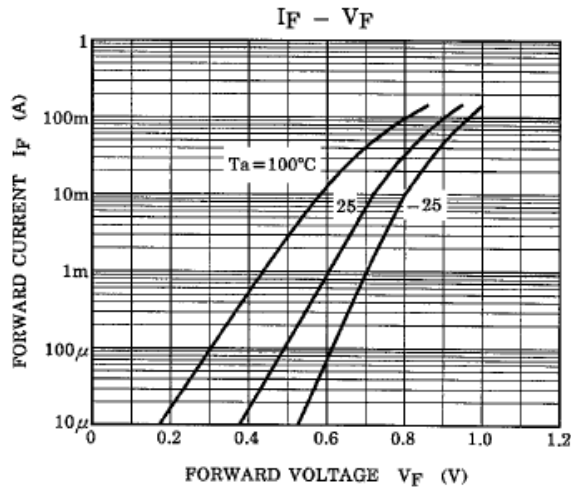
ELECTRICAL CHARACTERISTICS @ Ta=25 °C unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	80	-	-	V	$I_R=100\mu A$
Forward Voltage	V_F	-	0.60 0.72 0.90	1.2	V	$I_F=1mA$ $I_F=10mA$ $I_F=100mA$
Reverse Leakage Current	I_R	-	-	0.1 0.5	μA	$V_R=30V$ $V_R=80V$
Total Capacitance	C_T	-	0.90	3.0	pF	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	1.6	4.0	ns	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R$

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



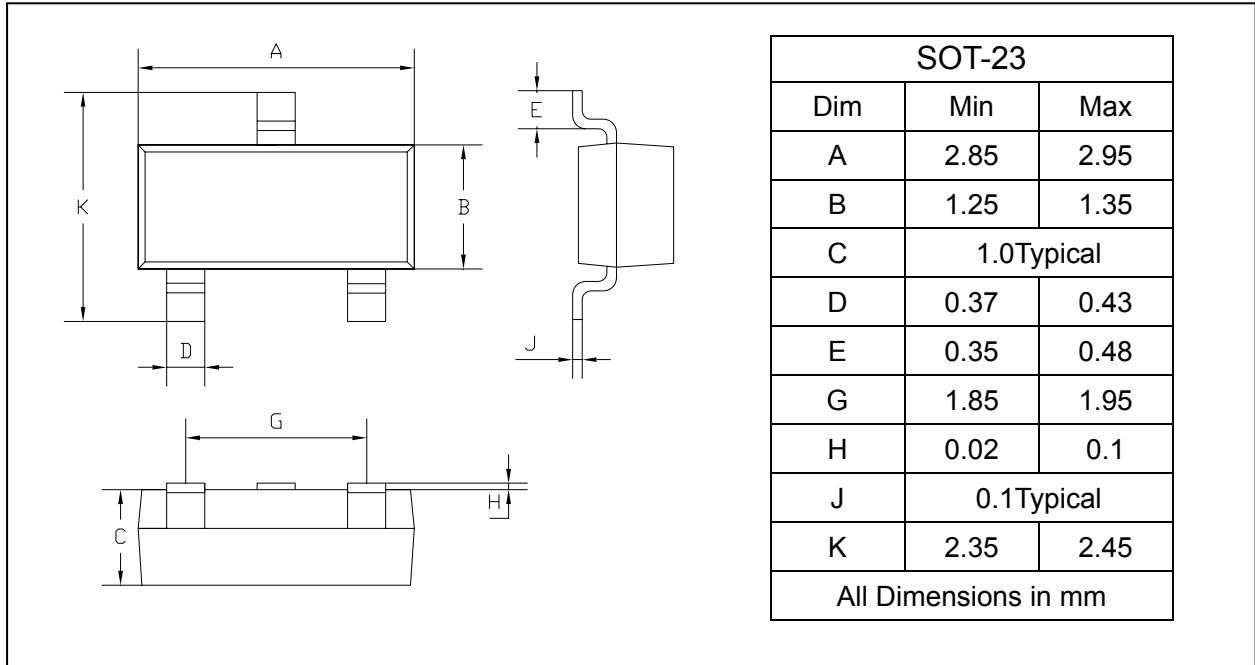
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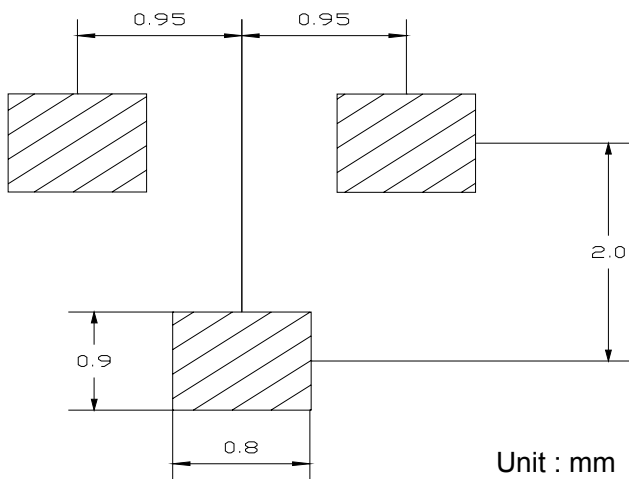
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
1SS193	SOT-23	3000/Tape&Reel