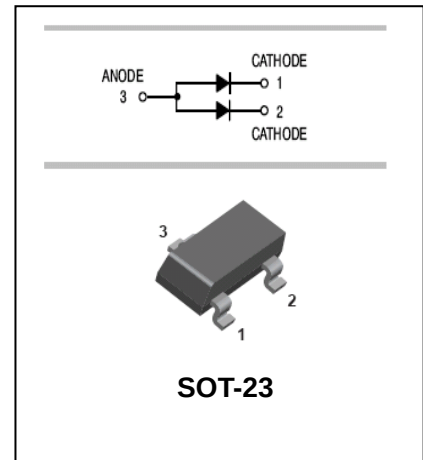


Surface mount switching diode

1SS181

FEATURES

- Low forward voltage
 $V_{F(3)}=0.92V(\text{typ})$.
- Small total capacitance: $C_T=2.2pF(\text{Typ})$
- Fast reverse recovery time: $t_{rr}=1.6ns(\text{typ})$



APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
1SS181	A3	SOT-23

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	85	V
DC Reverse Voltage	V_R	80	V
Surge current (10ms)	I_{FSM}	2	A
Forward Output current	I_o	100	mA
Power Dissipation	P_d	150	mW
Operating Junction Temperature Range	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +125	$^\circ\text{C}$

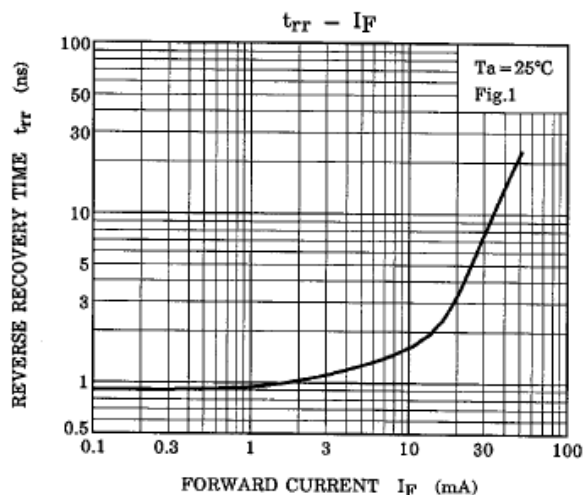
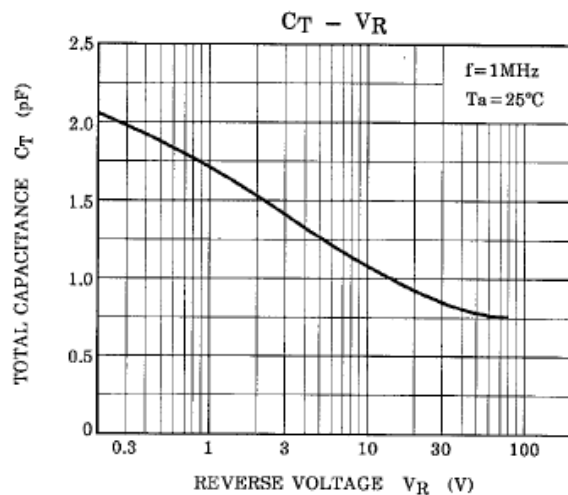
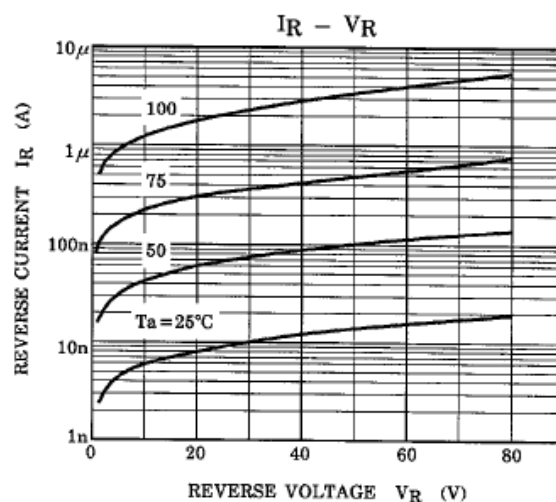
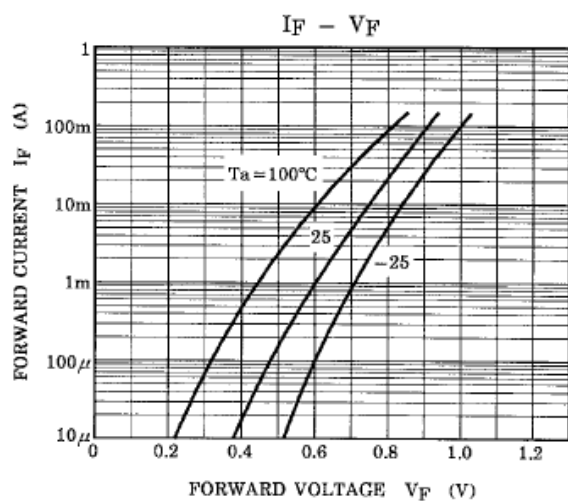
ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	80	-	-	V	$I_R=100\mu\text{A}$
Forward Voltage	V_F	-	0.61 0.74 0.92	- - 1.2	V	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=100\text{mA}$
Reverse Leakage Current	I_R	-		0.1 0.5	μA	$V_R=30\text{V}$ $V_R=80\text{V}$
Total Capacitance	C_T	-	2.2	4.0	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	1.6	4.0	ns	$I_F=I_R=10\text{mA}, I_{tr}=0.1*I_R$

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

Surface mount switching diode

1SS181



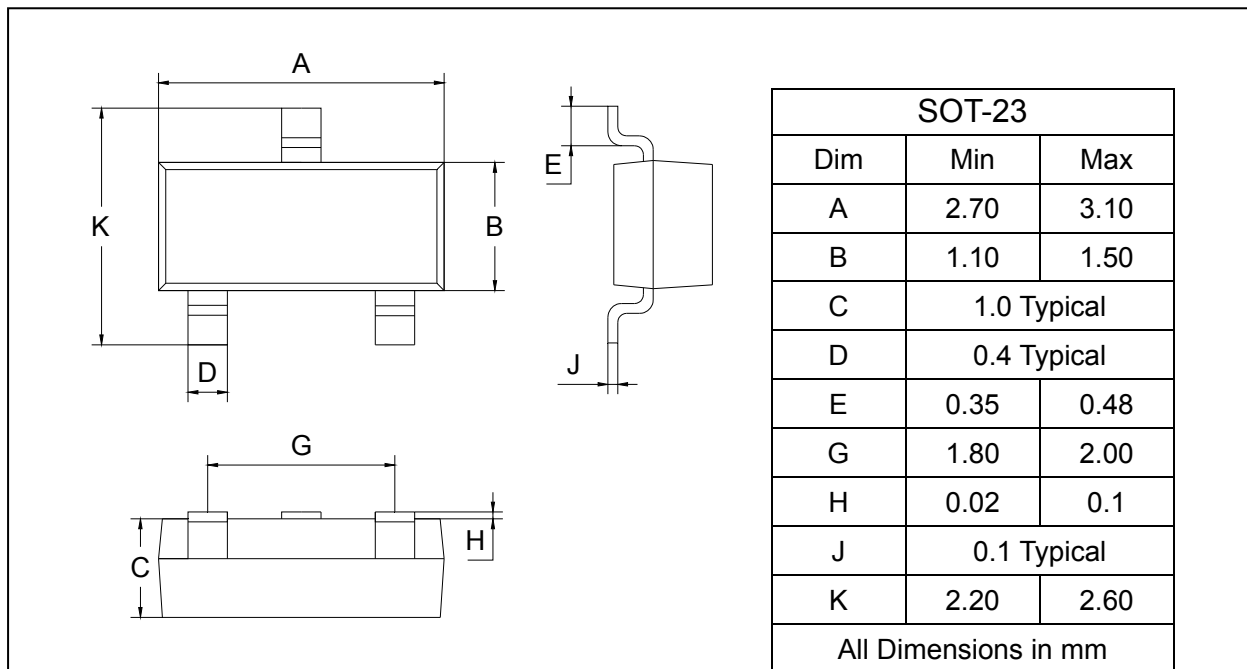
PACKAGE OUTLINE

Surface mount switching diode

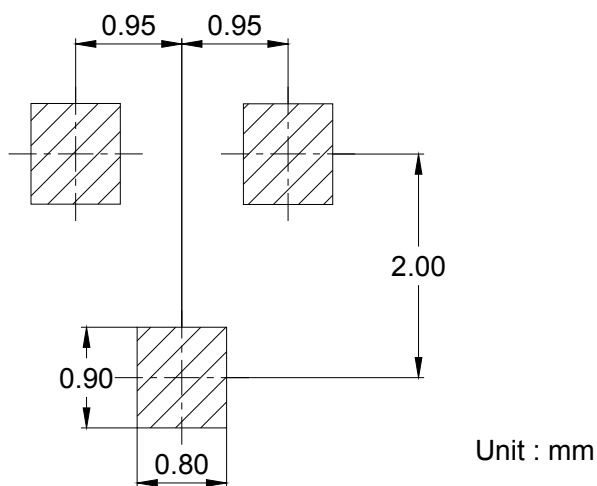
1SS181

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
1SS181	SOT-23	3000/Tape&Reel