



Micro Commercial Components



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# 1SS193

## 150mW Switching Diodes

### Features

- Low Leakage Current
- Surface Mount SOT-23 Package
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking Code : F3
- Halogen free available upon request by adding suffix "-HF"

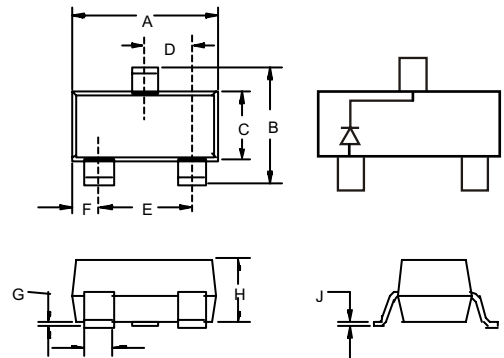
### Maximum Ratings

Reverse Voltage	$V_R$	80V
Forward Current	$I_F$	100mA
Power Dissipation @ $T_A=25^\circ\text{C}$	$P_D$	150mW
Storage Temperature Range	$T_{stg}$	$-55^\circ\text{C}$ to $+150^\circ\text{C}$
Junction Temperature	$T_j$	$150^\circ\text{C}$

### Electrical Characteristics @ 25°C Unless Otherwise Specified

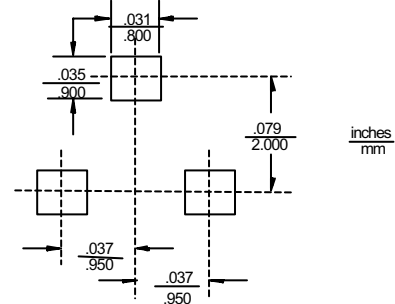
Reverse Voltage	$V_R$	80V	
Minimum Reverse Breakdown Voltage	$V_{(BR)}$	80V	$I_R=100\mu\text{A}$ $T_A = 25^\circ\text{C}$
Maximum Forward Voltage	$V_F$	1.2V	$T_A = 25^\circ\text{C}$ $I_F = 100\text{mA};$
Maximum Reverse Voltage Leakage Current	$I_R$	0.5uA	$V_R=80\text{Volts}$ $T_A = 25^\circ\text{C}$
Maximum Diode Capacitance	$C_D$	3.0pF	Measured at $f=1.0\text{MHz},$ $V_R=0$
Maximum Reverse Recovery Time	$t_{rr}$	4.0ns	

### SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout



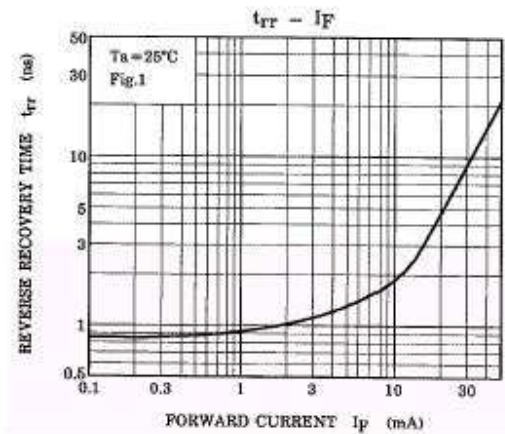
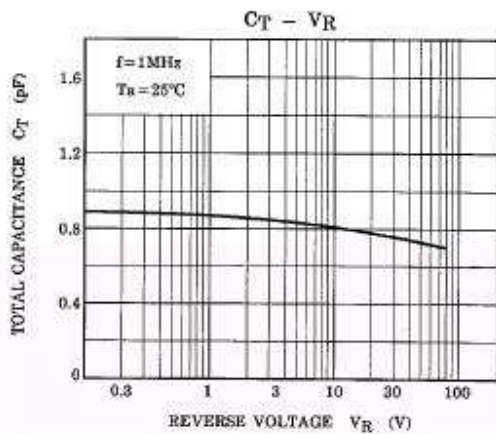
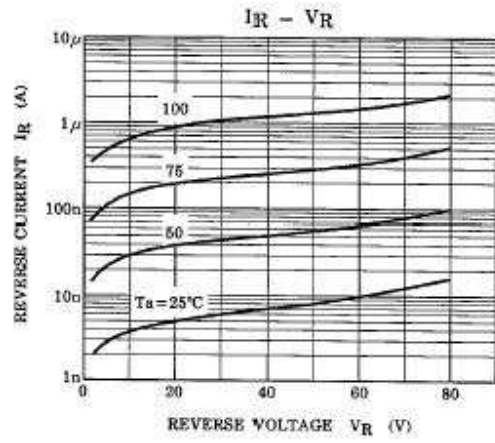
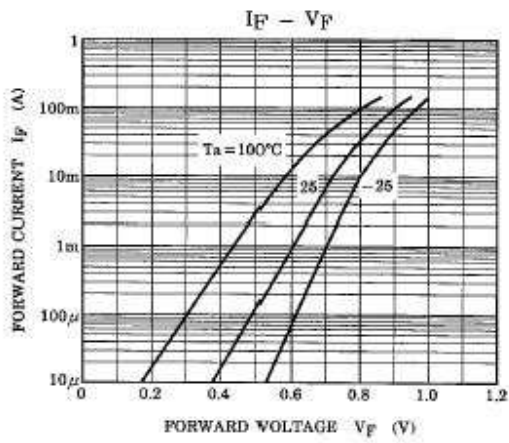
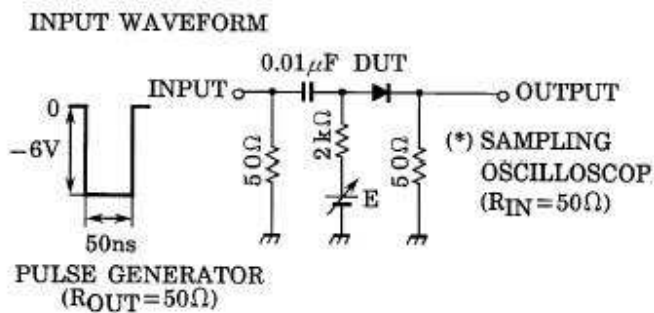
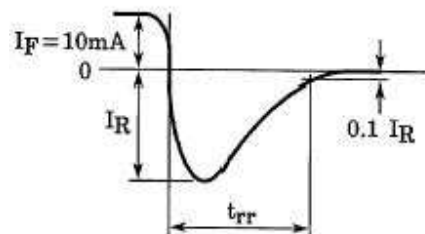


Fig.1 Reverse recovery time ( $t_{rr}$ ) test circuit



OUTPUT WAVEFORM





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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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