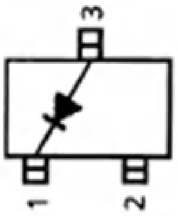
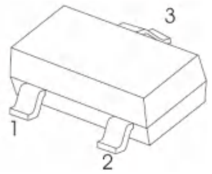
1SS187 Silicon Epitaxial Planar Type

Ultra High Speed Switching Application

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

Marking : D 3





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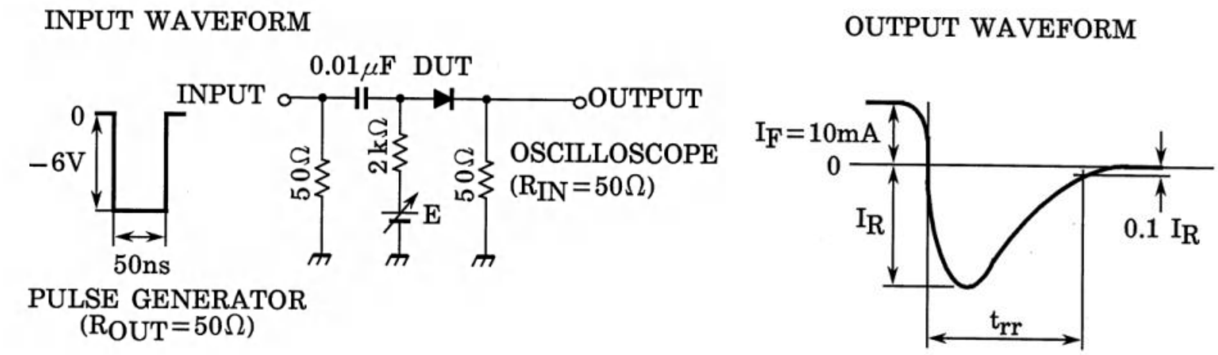
Absolute Maximum Ratings (Ta = 25°C)

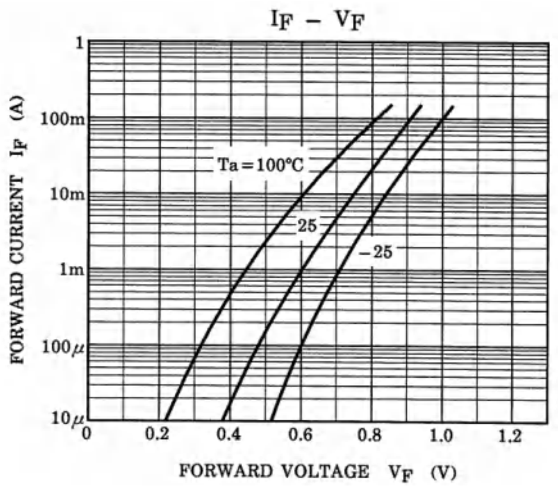
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum (peak) forward current	I_{FM}	300	mA
Average forward current	I_O	100	mA
Surge current (10ms)	I_{FSM}	2	A
Power dissipation	P	150	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55 to 125	°C

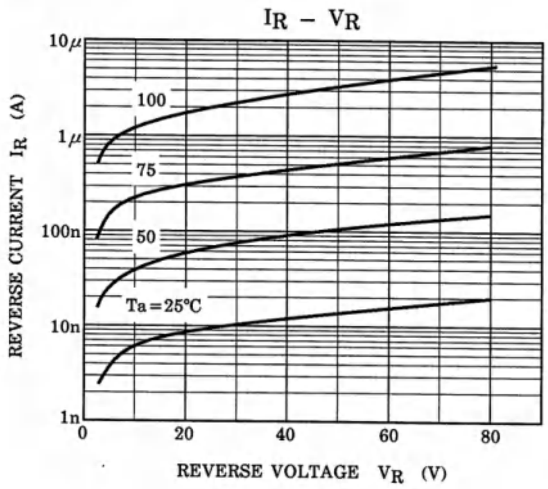
Electrical Characteristics

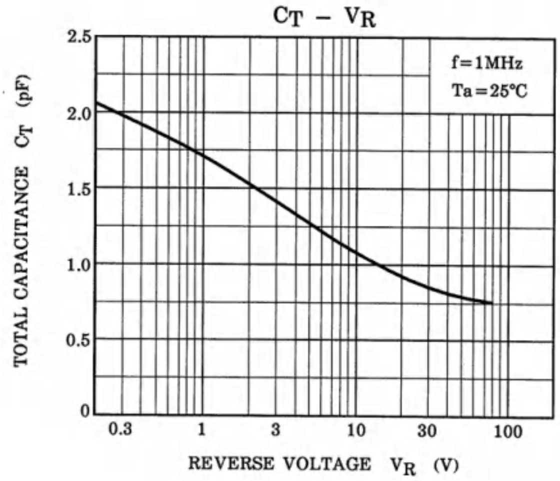
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	V_F (1)	I_F =1mA	—	0.61	—	V
	V_F (2)	I_F = 10mA	—	0.74	—	
	V_F (3)	I_F = 100mA	—	0.92	1.20	
Reverse current	I_R (1)	V_R = 30V	—	—	0.1	μA
	I_R (2)	V_R = 80V	—	—	0.5	
Total capacitance	C_T	V_R = 0V, f = 1MHz	—	2.2	4.0	pF
Reverse recovery tme	t_{rr}	I_F = 10mA (Fig.1)	—	1.6	4.0	ns

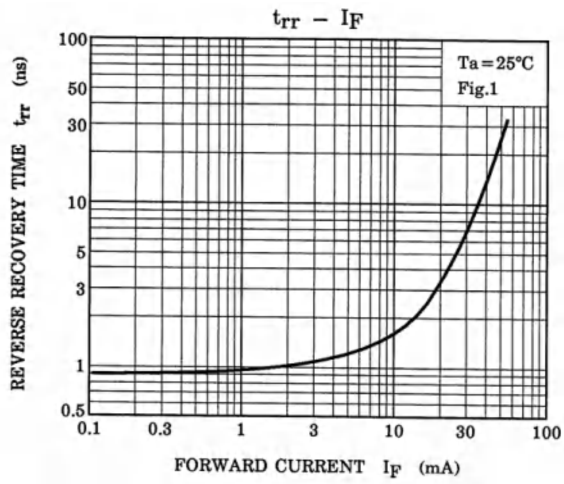
Fig.1 Reverse recovery time (trr) test circuit





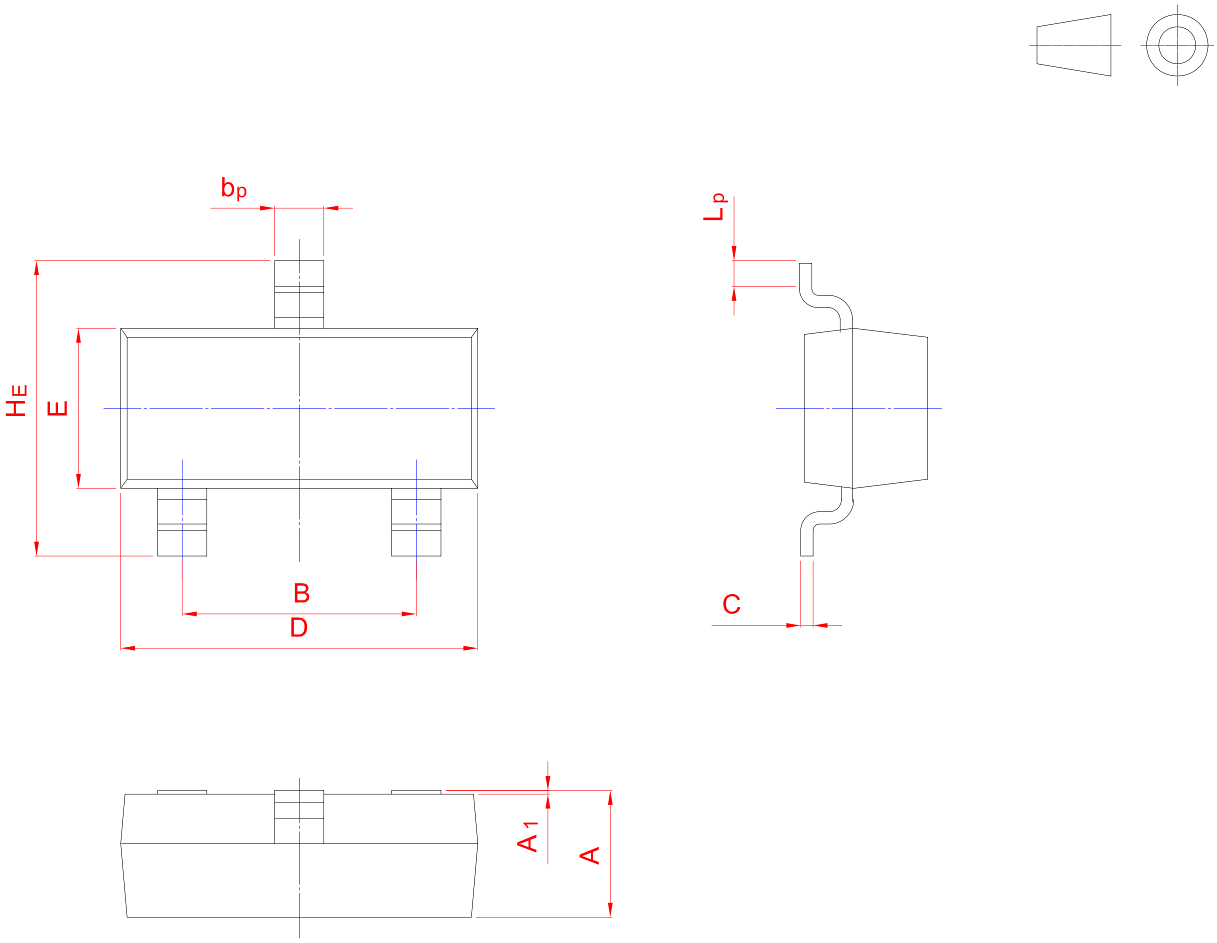






PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20