

1SS176~1SS178

Silicon Epitaxial Planar Type
Diode

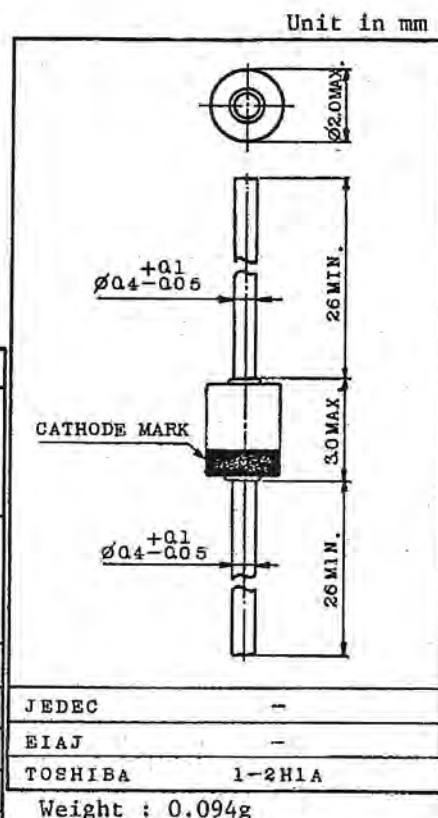
ULTRA HIGH SPEED SWITCHING APPLICATION.

FEATURES:

- Small Package.
- High Power Dissipation : $P=300\text{mW}$ (Max.)
- Fast Reverse Recovery Time : $t_{rr}=1.4\text{ns}$ (Typ.)
- Small Total Capacitance : $C_T=0.9\text{pF}$ (Typ.)

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	1SS176	V_{RM}	35	V
	1SS177		55	
	1SS178		90	
Reverse Voltage	1SS176	V_R	30	V
	1SS177		50	
	1SS178		80	
Maximum (Peak) Forward Current		I_{FM}	300	mA
Average Forward Current		I_O	100	mA
Surge Current (1 sec)		I_{FSM}	1	A
Power Dissipation		P	300	mW
Junction Temperature		T_j	175	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-65~175	$^\circ\text{C}$

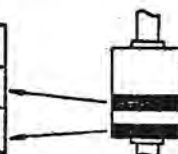


ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	1SS176			1SS177			1SS178			UNIT
			MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Forward Voltage	V_F	$I_F=100\text{mA}$	-	0.95	1.20	-	0.95	1.20	-	0.95	1.20	V
Reverse Current	I_R	$V_R=30\text{V}$	-	-	0.5	-	-	-	-	-	-	μA
		$V_R=50\text{V}$	-	-	-	-	-	0.5	-	-	-	
		$V_R=80\text{V}$	-	-	-	-	-	-	-	-	0.5	
Total Capacitance	C_T	$V_R=0, f=1\text{MHz}$	-	0.9	3.0	-	0.9	3.0	-	0.9	3.0	pF
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$, Fig.1	-	1.4	4.0	-	1.4	4.0	-	1.4	4.0	ns

MARKING (Color)

1SS176	1SS177	1SS178
-	Blue	Black
Green	Green	Green



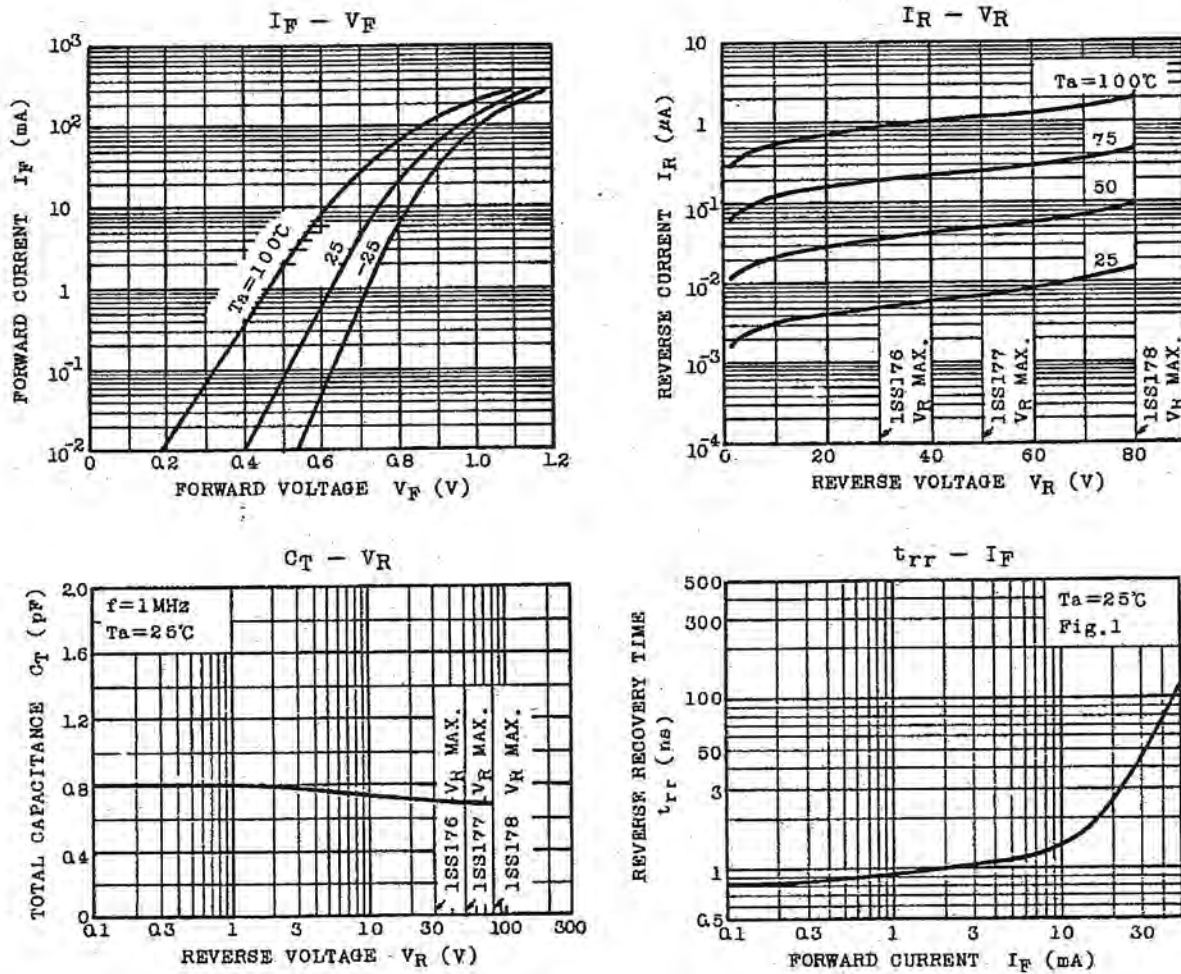


Fig. 1 REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT

