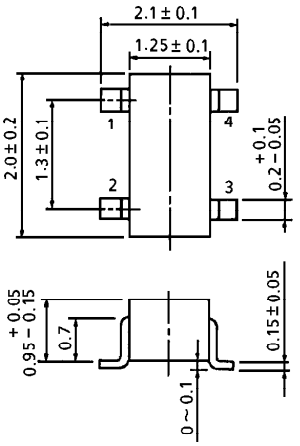
TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SS382

ULTRA HIGH SPEED SWITCHING APPLICATION

Unit in mm



- Small Package
- Composed of 2 independent diodes.
- Low Forward Voltage : $V_{F\,(3)}$ = 0.92V (TYP.)
- Fast Reverse Recovery Time : t_{rr} = 1.6ns (TYP.)

1. ANODE 1
2. ANODE 2
3. CATHODE 2
4. CATHODE 1

USQ	
JEDEC	—
EIAJ	—
TOSHIBA	1-2U1A

Weight : 0.006g

MAXIMUM RATINGS (Ta = 25°C)

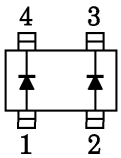
CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	85	V
Reverse Voltage	V_R	80	V
Maximum (Peak) Forward Current	I_{FM}	300 ※	mA
Average Forward Current	I_O	100 ※	mA
Surge Current (10ms)	I_{FSM}	2	A
Power Dissipation	P	100 ※	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

※ Unit Rating. Total Rating = Unit Rating × 1.5

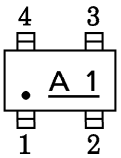
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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
	$V_{F\,(3)}$	I_F = 100mA	—	0.92	1.20	V
Reverse Current	$I_{R\,(1)}$	V_R = 30V	—	—	0.1	μA
	$I_{R\,(2)}$	V_R = 80V	—	—	0.5	μA
Total Capacitance	C_T	V_R = 0, f = 1MHz	—	0.9	2.0	pF
Reverse Recovery Time	t_{rr}	I_F = 10mA, Fig.1	—	1.6	4.0	ns

PIN ASSIGNMENT (TOP VIEW)



MARKING



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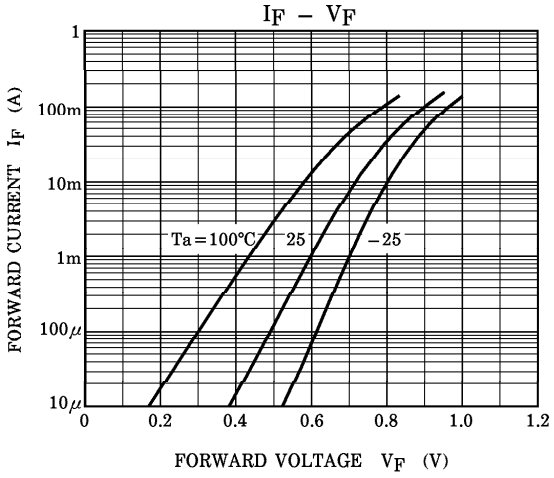
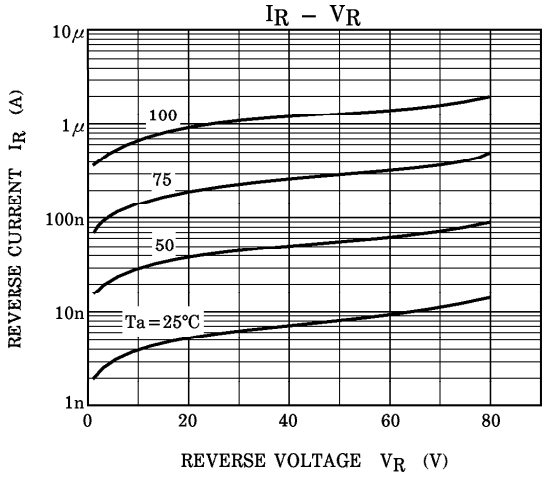
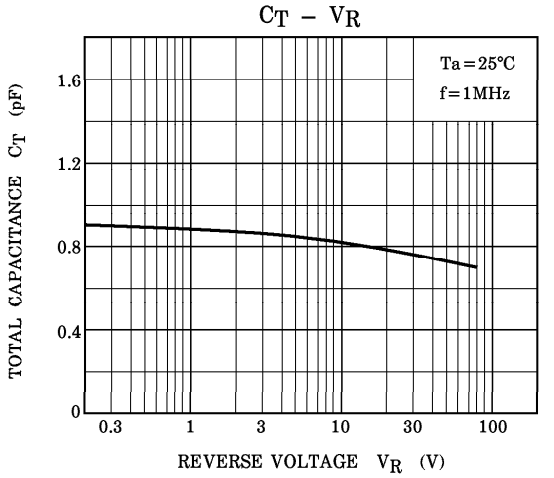






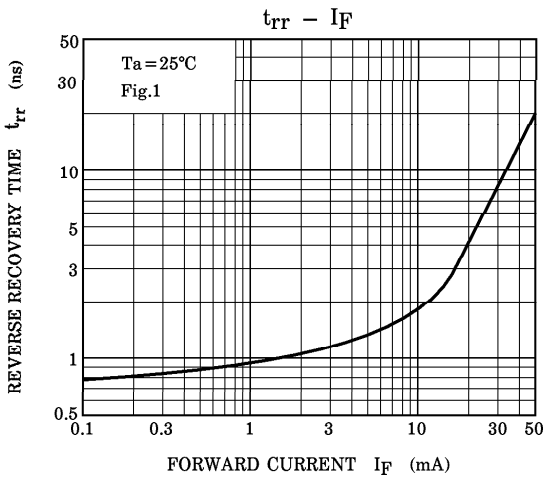
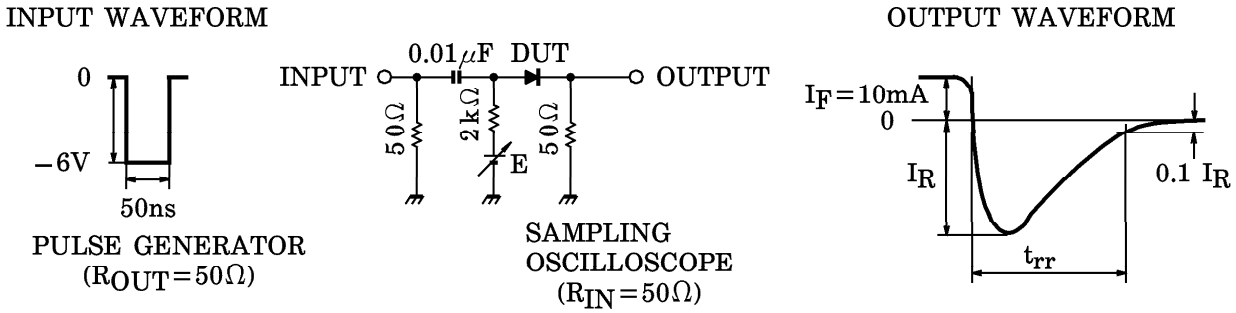


Fig.1 REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



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