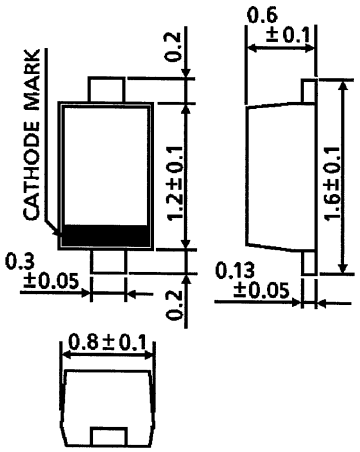
TOSHIBA Diode Silicon Epitaxial Planar Type

1SS387

Ultra High Speed Switching Application

Unit: mm



ESC	
JEDEC	—
EIAJ	—
TOSHIBA	1-1G1A

Weight: 1.4mg

- Small package
- Low forward voltage : $V_{F\ (3)}$ = 0.98V (typ.)
- Fast reverse recovery time: t_{rr} = 1.6ns (typ.)
- Small total capacitance : C_T = 0.5pF (typ.)

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}	200	mA
Average forward current	I_O	100	mA
Surge current (10ms)	I_{FSM}	1	A
Power dissipation	P	150 *	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55~125	°C

* : Mounted on a glass epoxy circuit board of 20 × 20mm, pad dimension of 4 × 4mm.

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_{F\ (1)}$	—	I_F = 1mA	—	0.62	—	V
	$V_{F\ (2)}$	—	I_F = 10mA	—	0.75	—	
	$V_{F\ (3)}$	—	I_F = 100mA	—	0.97	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 = 0, f = 1MHz	—	0.5	3.0	pF
Reverse recovery time	t_{rr}	—	I_F = 10mA, Fig.1	—	1.6	4.0	ns

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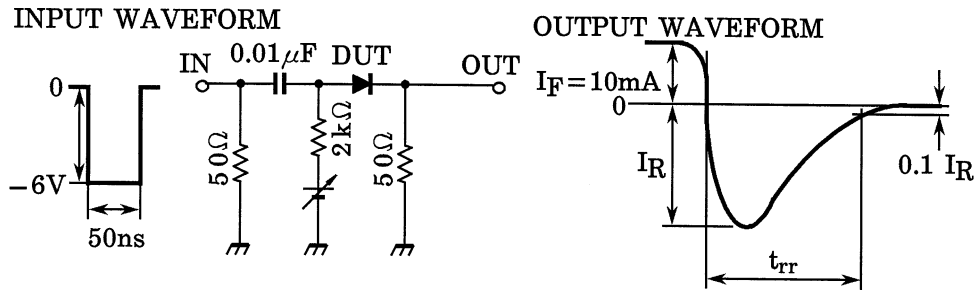
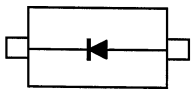
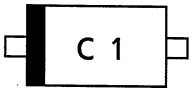
Fig.1 Reverse Recovery Time (t_{rr}) Test Circuit



Pin Assingnment (Top View)



Marking



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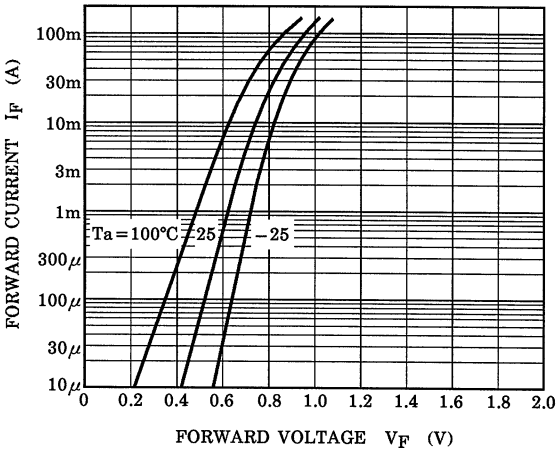
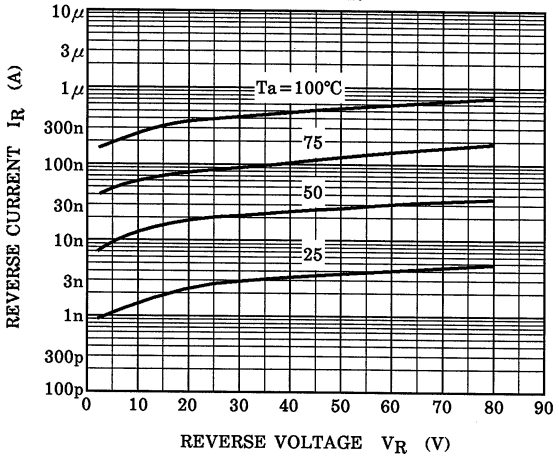
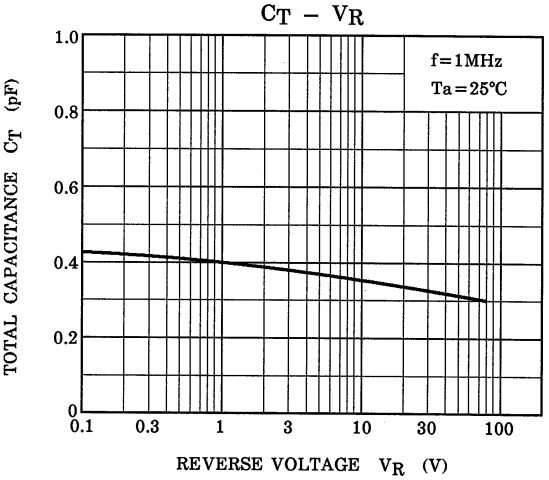
$I_F - V_F$



$I_R - V_R$



$C_T - V_R$



P – Ta