

TOSHIBA Diode Silicon Epitaxial Planar Type

# 1SS387

## Ultra High Speed Switching Application

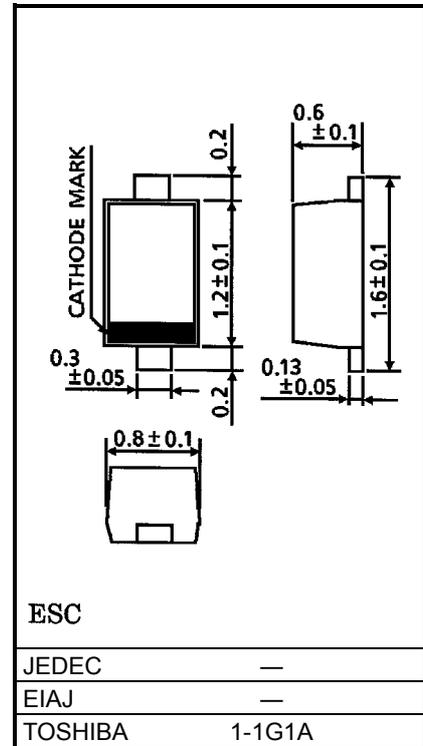
- Small package
- Low forward voltage :  $V_F(3) = 0.98V$  (typ.)
- Fast reverse recovery time:  $t_{rr} = 1.6ns$  (typ.)
- Small total capacitance :  $C_T = 0.5pF$  (typ.)

### Maximum Ratings ( $T_a = 25^\circ C$ )

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	$^\circ C$
Storage temperature	$T_{stg}$	-55~125	$^\circ C$

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

Unit: mm



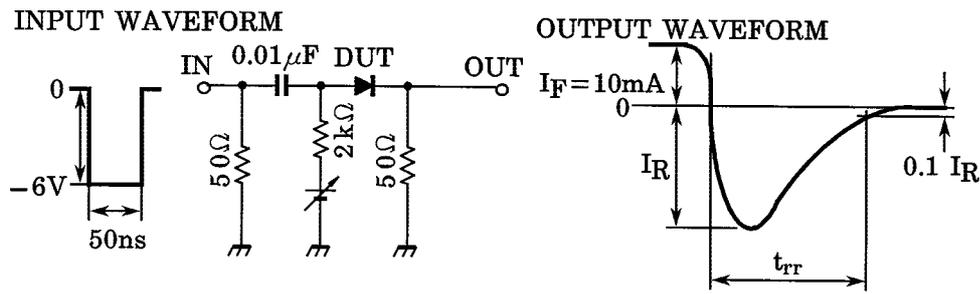
ESC

Weight: 1.4mg

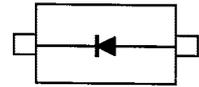
### Electrical Characteristics ( $T_a = 25^\circ C$ )

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	$\mu A$
	$I_R(2)$	—	$V_R = 80V$	—	—	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

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



**Pin Assignment  
(Top View)**



**Marking**

