

TOSHIBA Diode Silicon Epitaxial Planar Type

# 1SS336

## Ultra High Speed Switching Application

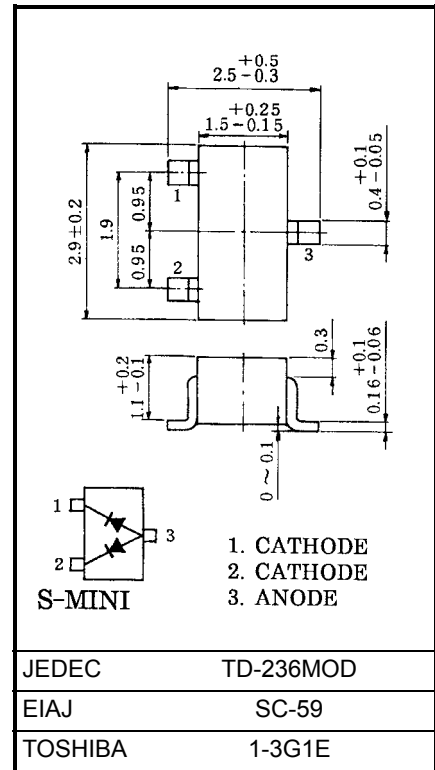
- Small package : SC-59
- Low forward voltage :  $V_F(3) = 0.84V$  (typ.)
- Fast reverse recovery time:  $t_{rr} = 7ns$  (typ.)
- Small total capacitance :  $C_T = 7pF$  (typ.)

### 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	$I_{FM}$	600 *	mA
Average forward current	$I_O$	200 *	mA
Surge current (10ms)	$I_{FSM}$	6 *	A
Power dissipation	P	150	mW
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55~150	$^\circ C$

\*: Unit rating. Total rating = unit rating  $\times$  1.5

Unit in mm



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

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F(1)$	—	$I_F = 10mA$	—	0.64	—	V
	$V_F(2)$	—	$I_F = 100mA$	—	0.78	—	
	$V_F(3)$	—	$I_F = 200mA$	—	0.84	1.2	
Reverse current	$I_R(1)$	—	$V_R = 30V$	—	—	0.25	$\mu A$
	$I_R(2)$	—	$V_R = 80V$	—	—	0.50	
Total capacitance	$C_T$	—	$V_R = 0, f = 1MHz$	—	7	—	pF
Reverse recovery time	$t_{rr}$	—	$I_F = 30mA, Fig.1$	—	7	20	ns

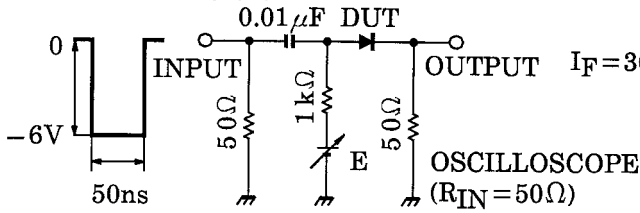
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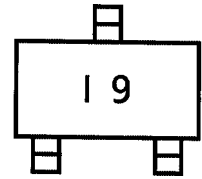
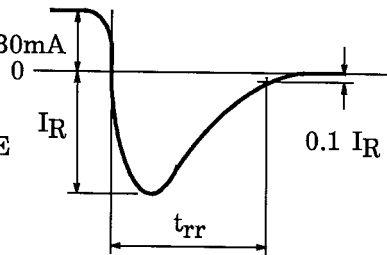
Fig.1 Reverse Recovery Time ( $t_{rr}$ ) Test Circuit

Marking

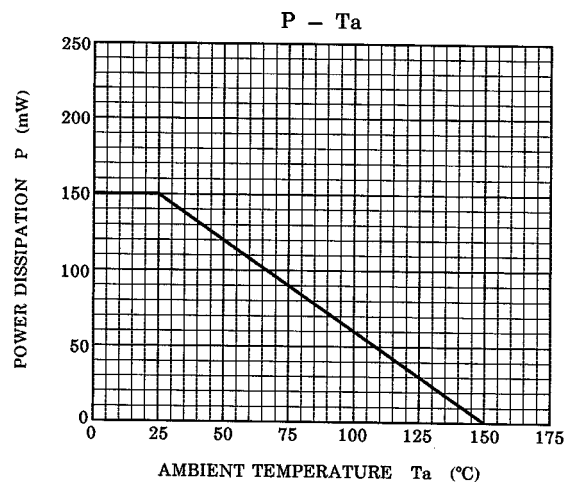
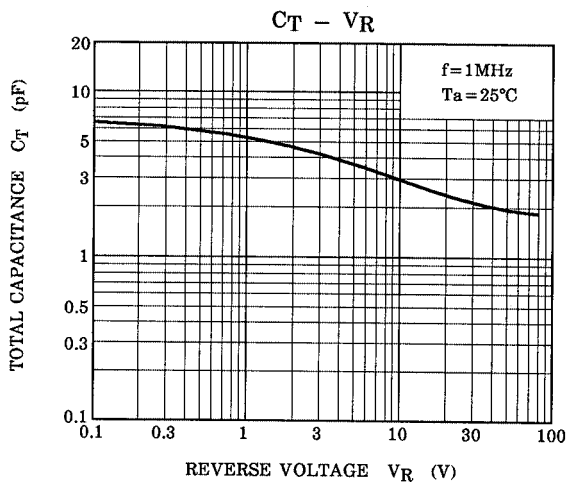
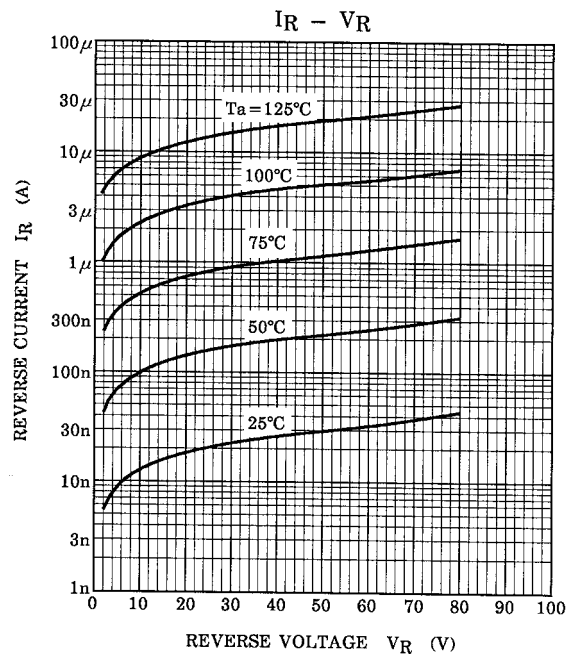
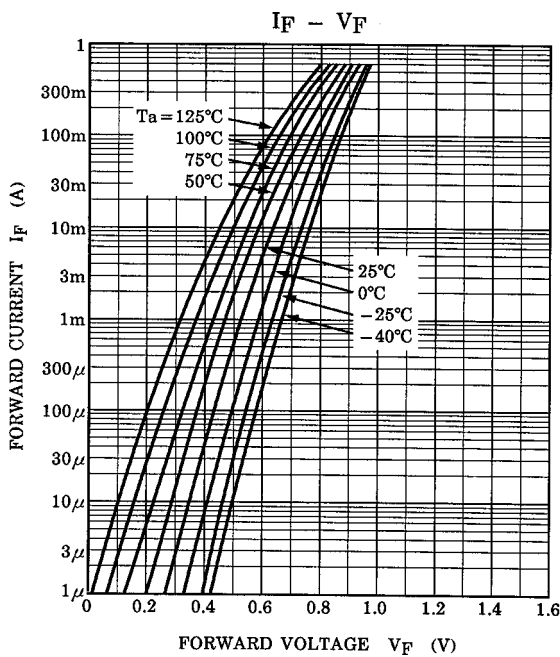
INPUT WAVEFORM



OUTPUT WAVEFORM



PULSE GENERATOR ( $R_{OUT} = 50\Omega$ )



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