

# 1SS399

High Voltage, High Speed Switching Applications

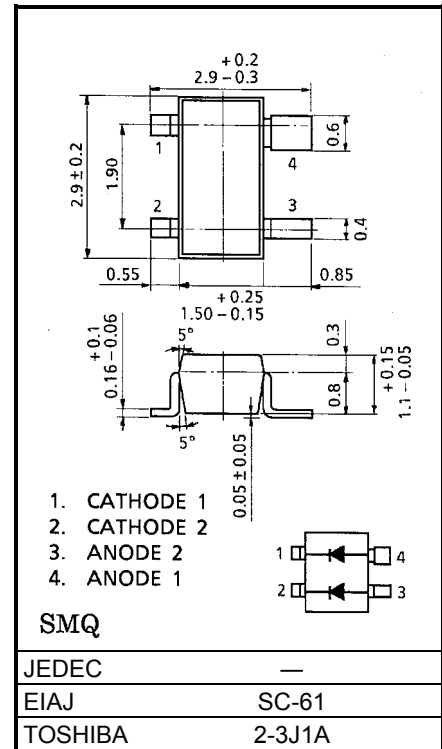
Unit: mm

- Low forward voltage :  $V_F = 1.0V$  (typ.)
- High voltage :  $V_R = 400V$  (min.)
- Fast reverse recovery time:  $t_{rr} = 0.5\mu s$  (typ.)
- Small total capacitance :  $C_T = 2.5pF$  (typ.)
- Small package : SC-61

## Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	$V_{RM}$	420	V
Reverse voltage	$V_R$	400	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	150 *	mW
Junction temperature	$T_j$	125	°C
Storage temperature range	$T_{stg}$	-55~125	°C

\* : Unit rating. Total rating = unit rating × 1.5



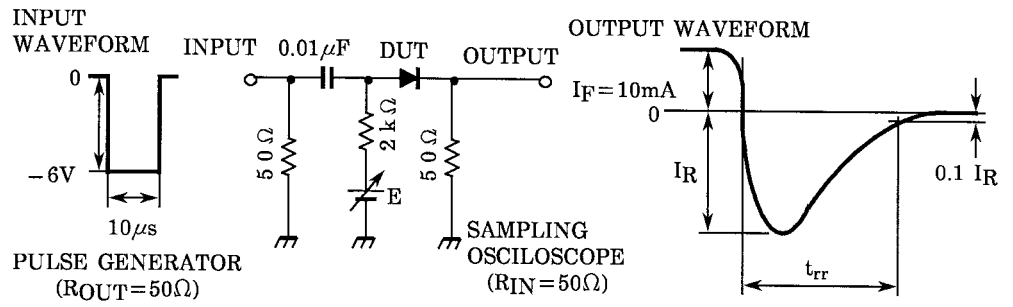
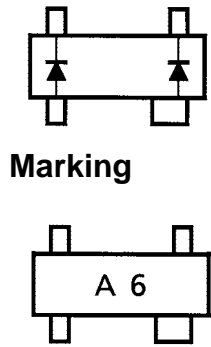
Weight: 0.013g

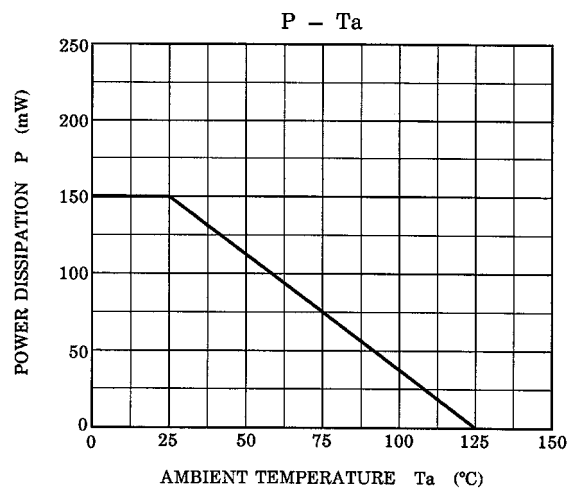
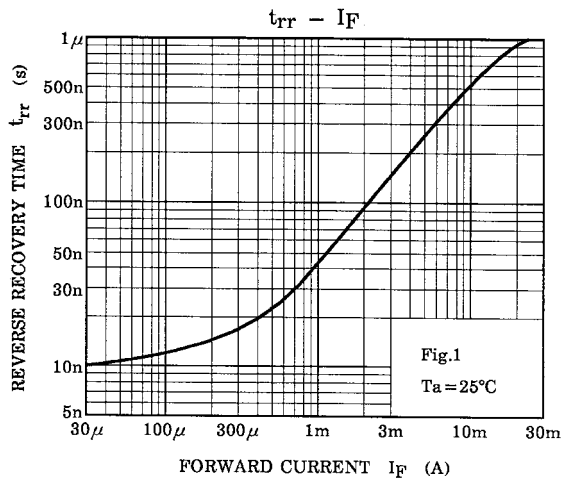
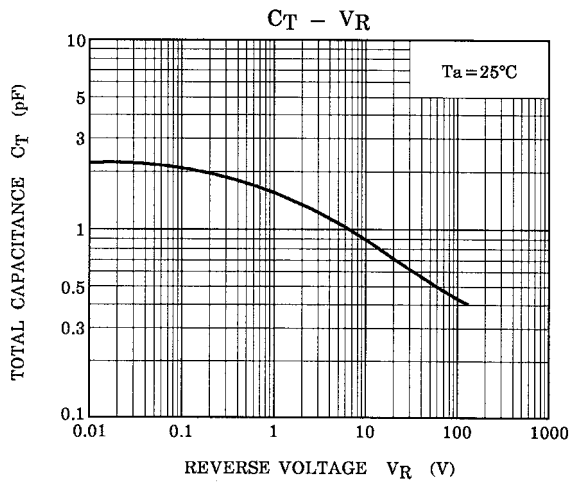
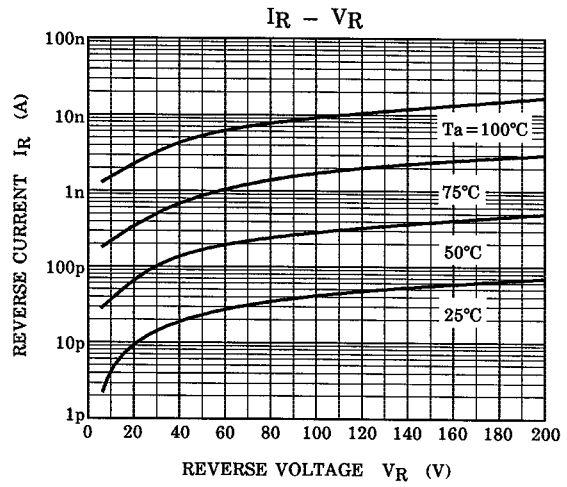
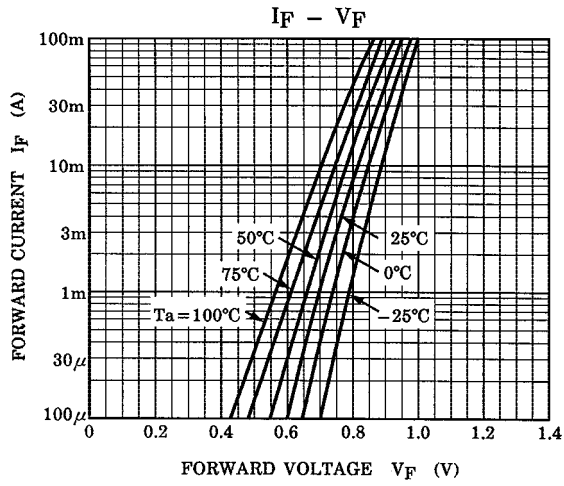
## Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F$ (1)	—	$I_F = 10mA$	—	0.8	—	V
	$V_F$ (2)	—	$I_F = 100mA$	—	1.0	1.3	
Reverse current	$I_R$ (1)	—	$V_R = 300V$	—	—	0.1	$\mu A$
	$I_R$ (2)	—	$V_R = 400V$	—	—	1.0	
Total capacitance	$C_T$	—	$V_R = 0, f = 1MHz$	—	2.5	5.0	pF
Reverse recovery time	$t_{rr}$	—	$I_F = 10mA$ (Fig.1)	—	0.5	—	$\mu s$

Equivalent Circuit  
(Top View)

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





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