

TOSHIBA Diode Silicon Epitaxial Planar Type

**1SS306**

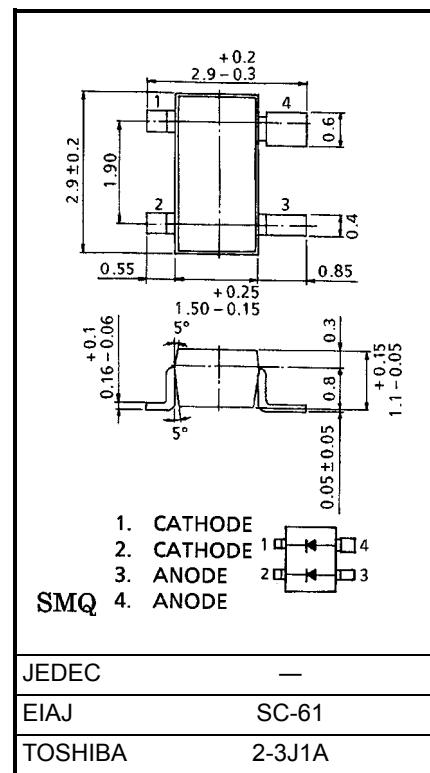
High Voltage, High Speed Switching Applications

Unit: mm

- Low forward voltage :  $V_F(2) = 0.90V$  (typ.)
- Fast reverse recovery time :  $t_{rr} = 30ns$  (max)
- Small total capacitance :  $C_T = 1.5pF$  (typ.)
- Small package : SC-61

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

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	$V_{RM}$	250	V
Reverse voltage	$V_R$	200	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	$T_{stg}$	-55~125	°C

\*: Unit rating. Total rating = unit rating  $\times 1.5$ **Electrical Characteristics ( $T_a = 25^\circ C$ )**

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit	
Forward voltage	$V_F(1)$	—	$I_F = 10mA$	—	0.72	1.0	V	
	$V_F(2)$	—	$I_F = 100mA$	—	0.9	1.2		
Reverse current	$I_R(1)$	—	$V_R = 50V$	—	—	0.1	$\mu A$	
	$I_R(2)$	—	$V_R = 200V$	—	—	1.0		
Total capacitance	$C_T$	—	$V_R = 0, f = 1MHz$	—	1.5	3.0	pF	
Reverse recovery time	$t_{rr}$	—	$I_F = 10mA$	Fig.1	—	30	60	ns