

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS389

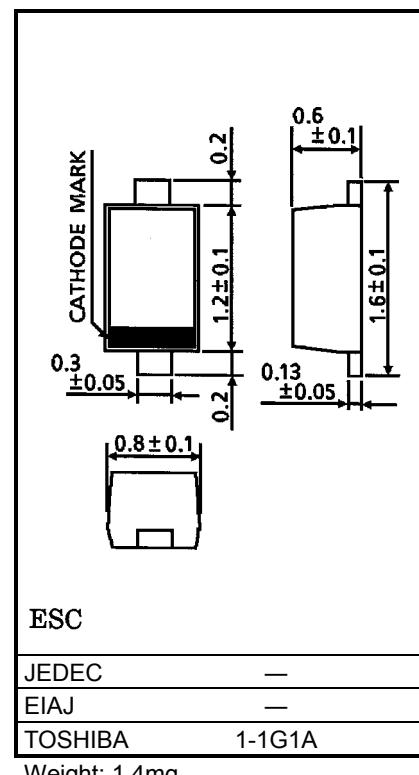
High Speed Switching Application

- Small package
- Low forward voltage: $V_F = 0.23V$ (typ.) @ $I_F = 5mA$

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

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	15	V
Reverse voltage	V_R	10	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 range	T_{stg}	-55~125	°C
Operating temperature range	T_{opr}	-40~100	°C

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

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

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	V_F (1)	—	$I_F = 1mA$	—	0.18	—	V
	V_F (2)	—	$I_F = 5mA$	—	0.23	0.30	
	V_F (3)	—	$I_F = 100mA$	—	0.35	0.50	
Reverse current	I_R	—	$V_R = 10V$	—	—	20	μA
Total capacitance	CT	—	$VR = 0, f = 1MHz$	—	20	40	pF

Equivalent Circuit (Top View)**Marking**