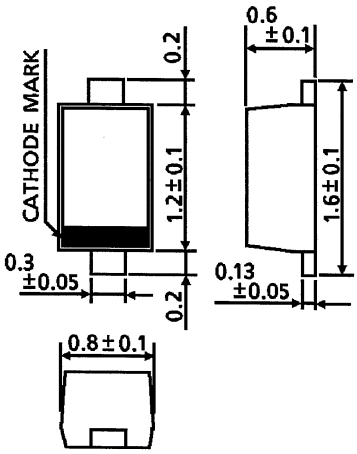
TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS389

High Speed Switching Application

Unit: mm

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



ESC	
JEDEC	—
EIAJ	—
TOSHIBA	1-1G1A

Weight: 1.4mg

Maximum Ratings (Ta = 25°C)

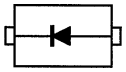
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	15	V
Reverse voltage	V_R	10	V
Maximum (peak) forward current	I_{FM}	200	mA
Average forward current	I_O	100	mA
Surge current (10ms)	I_{FSM}	1	A
Power dissipation	P *	150	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C
Operating temperature range	T_{opr}	−40~100	°C

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

Electrical Characteristics (Ta = 25°C)

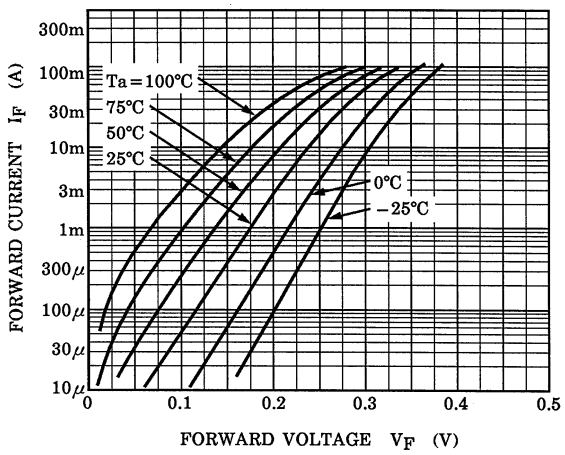
Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_{F\ (1)}$	—	I_F = 1mA	—	0.18	—	V
	$V_{F\ (2)}$	—	I_F = 5mA	—	0.23	0.30	
	$V_{F\ (3)}$	—	I_F = 100mA	—	0.35	0.50	
Reverse current	I_R	—	V_R = 10V	—	—	20	μA
Total capacitance	CT	—	VR = 0, f = 1MHz	—	20	40	pF

Equivalent Circuit (Top View)

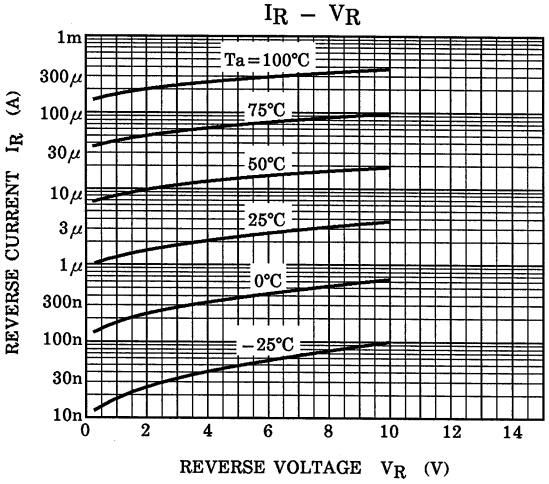


Marking

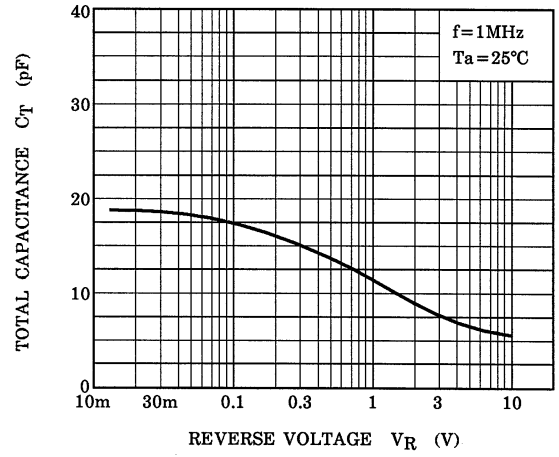
$I_F - V_F$



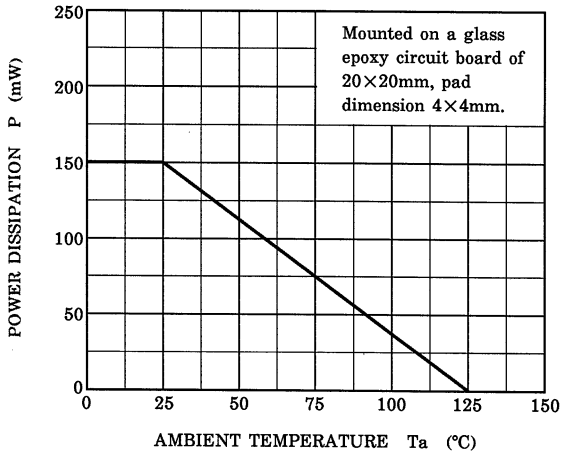
$I_R - V_R$



$C_T - V_R$



$P - Ta$



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