TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

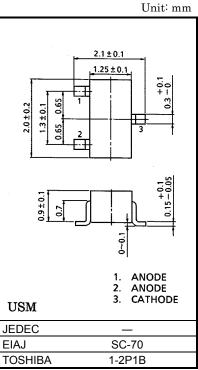
# **1SS393**

#### High Speed Switching Application

- Low forward voltage  $: V_F (3) = 0.54V (typ.)$
- Low reverse current
- $I_{\rm R}$  = 5µA (max)
- Small package
- $: I_{\rm K} = 5\mu A (maz)$ : SC-70

### Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit	
Maximum (peak) reverse Voltage	V <sub>RM</sub>	45	V	
Reverse voltage	V <sub>R</sub>	40	V	
Maximum (peak) forward current	I <sub>FM</sub>	300 *	mA	
Average forward current	Ι <sub>Ο</sub>	100 *	mA	
Surge current (10ms)	I <sub>FSM</sub>	1 *	A	
Power dissipation	Р	100	mW	
Junction temperature	Tj	125	°C	
Storage temperature range	T <sub>stg</sub>	-55~125	°C	
Operating temperature range	T <sub>opr</sub>	-40~100	°C	



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

Weight: 0.006g

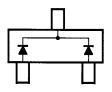
#### Electrical Characteristics (Ta = 25°C)

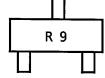
Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Forward voltage	V <sub>F (1)</sub>	_	I <sub>F</sub> = 1mA	_	0.28	_	
	V <sub>F (2)</sub>		I <sub>F</sub> = 10mA		0.36		V
	VF (3)	_	I <sub>F</sub> = 100mA	-	0.54	0.60	
Reverse current	Ι <sub>R</sub>		V <sub>R</sub> = 40V			5	μA
Total capacitance	CT	_	V <sub>R</sub> = 0, f = 1MH <sub>z</sub>		18	25	pF

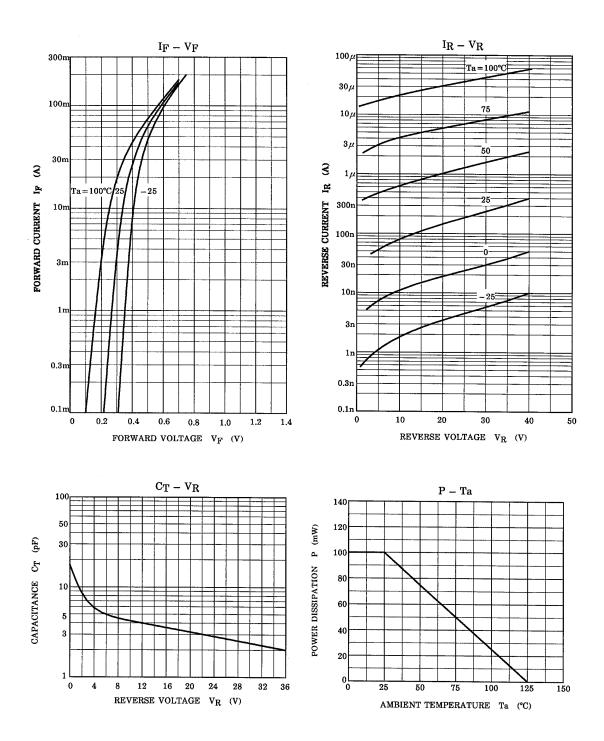
## TOSHIBA

#### **Equivalent Circuit (Top View)**

Marking







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