TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

# **1SS416**

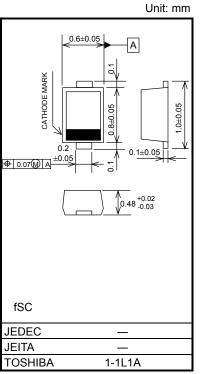
### **High Speed Switching Application**

- Small package
- Low forward voltage: V<sub>F</sub> = 0.23V (typ.) @I<sub>F</sub> = 5mA

## **Maximum Ratings (Ta = 25°C)**

Characteristic	Symbol	Rating	Unit	
Maximum (peak) reverse voltage	$V_{RM}$	35	V	
Reverse voltage	V <sub>R</sub>	30	V	
Maximum (peak) forward current	I <sub>FM</sub>	200	mA	
Average forward current	Io	100	mA	
Surge current (10ms)	I <sub>FSM</sub>	1	Α	
Power dissipation	P*	100	mW	
Junction temperature	Tj	125	°C	
Storage temperature range	T <sub>stg</sub>	<b>−55~125</b>	°C	
Operating temperature range	T <sub>opr</sub>	<b>−40~100</b>	°C	

<sup>\*:</sup> Mounted on a glass epoxy circuit board of 20 × 20mm, pad dimension of 4 × 4mm.



Weight: 0.6mg(typ.)

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

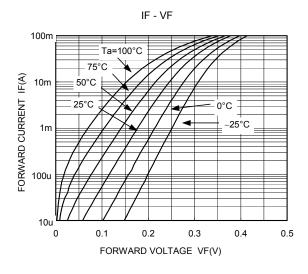
Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Forward voltage	V <sub>F (1)</sub>	_	I <sub>F</sub> = 1mA	_	0.18	_	V
	V <sub>F (2)</sub>	_	I <sub>F</sub> = 5mA	_	0.23	_	
	V <sub>F (3)</sub>	_	I <sub>F</sub> = 100mA	_	0.38	0.50	
Reverse current	I <sub>R(1)</sub>	_	V <sub>R</sub> = 10V	_	_	20	μΑ
	I <sub>R(2)</sub>	_	V <sub>R</sub> = 30V	_	_	50	
Total capacitance	СТ	_	VR = 0, f = 1MHz	_	15	_	pF

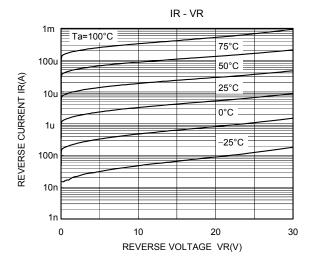
### **Equivalent Circuit (Top View)**

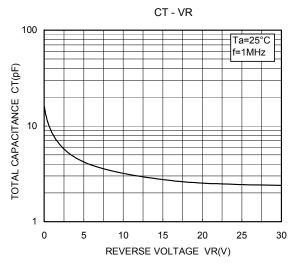


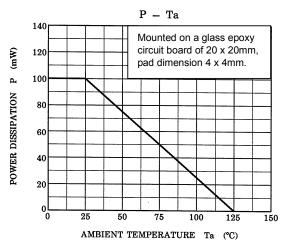
### Marking











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