TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS417CT

High Speed Switching Application

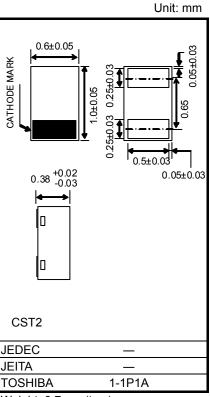
• Small package

• Low forward voltage: $V_F(3) = 0.56 \text{ V (typ.)}$

• Low reverse current: $I_R = 5 \mu A (max)$

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit	
Maximum (peak) reverse Voltage	V_{RM}	45	V	
Reverse voltage	V _R	40	V	
Maximum (peak) forward current	I _{FM}	200	mA	
Average forward current	Io	100	mA	
Surge current (10ms)	I _{FSM}	1	Α	
Power dissipation	P*	100	mW	
Junction temperature	Tj	125	°C	
Storage temperature range	T _{stg}	-55 to 125	°C	
Operating temperature range	T _{opr}	-40 to 100	°C	



Weight: 0.7 mg (typ.)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit	
Forward voltage	V _{F (1)}	_	I _F = 1 mA	_	0.28	_		
	V _{F (2)}	_	I _F = 10 mA	_	0.36	_	V	
	V _{F (3)}	_	I _F = 100 mA	_	0.56	0.62		
Reverse current	I _R	_	V _R = 40 V	_	_	5	μА	
Total capacitance	C _T	_	V _R = 0 V, f = 1 MHz	-	15	_	pF	

Marking

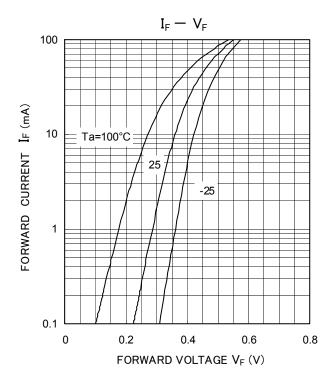


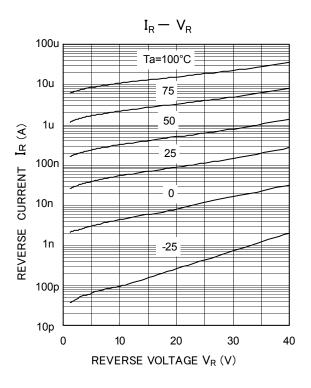
Equivalent Circuit (Top View)

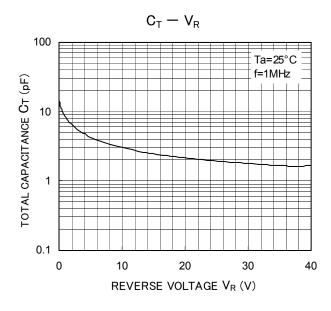


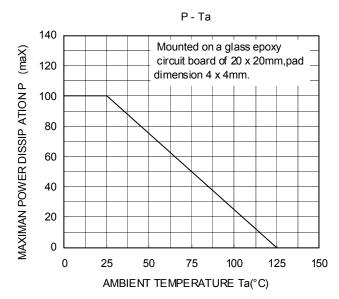
Start of commercial production 2004-08

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









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