TOSHIBA Schottky Barrier Rectifier Schottky Barrier Type

CMS09

Switching Mode Power Supply Applications Portable Equipment Battery Applications

- Forward voltage: $V_{FM} = 0.45 \text{ V (max)}$
- Average forward current: IF (AV) = 1.0 A
- Repetitive peak reverse voltage: V_{RRM} = 30 V
- Suitable for compact assembly due to small surface-mount package "M-FLATTM" (Toshiba package name)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Average forward current (Note)	I _{F (AV)}	1.0 (Ta = 51°C)	Α
Peak one cycle surge forward current (non-repetitive)	I _{FSM}	25 (50 Hz)	А
Junction temperature	Tj	-40~150	°C
Storage temperature	T _{stg}	−40 ~ 150	°C

Note: Device mounted on a glass-epoxy board

(board size: 50 mm \times 50 mm, soldering land: 6 mm \times 6 mm)

Unit: mm 2 2 1.75 ± 0.1 2.4 + 0.1 2.4 + 0.1 ANODE CATHODE JEDEC JEITA —

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Weight: 0.023 g (typ.)

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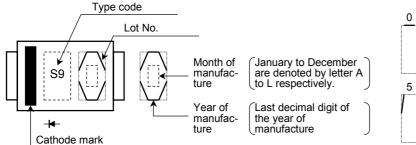
Electrical Characteristics (Ta = 25°C)

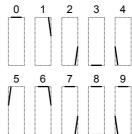
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit	
Peak forward voltage	V _{FM (1)}	I _{FM} = 0.1 A	_	0.32	_	٧	
	V _{FM (2)}	I _{FM} = 0.5 A	_	0.37	_		
	V _{FM (3)}	I _{FM} = 1.0 A	_	0.40	0.45		
Repetitive peak reverse current	I _{RRM}	V _{RRM} = 5 V	_	1.5	_	μА	
	I _{RRM}	V _{RRM} = 30 V	_	15.0	500		
Junction capacitance	Cj	V _R = 10 V, f = 1.0 MHz	_	70	_	pF	
Thermal resistance	R _{th (j-a)}	Device mounted on a ceramic board (soldering land: 2 mm × 2 mm)	_	_	60		
		Device mounted on a glass-epoxy board (soldering land: 6 mm × 6 mm)	_	_	135	°C/W	
Thermal resistance	R _{th (j-ℓ)}	_	_	_	16	°C/W	

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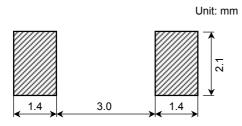
Marking

Following Indicates the Data of Manufacture





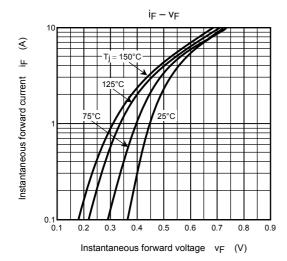
Standard Soldering Pad

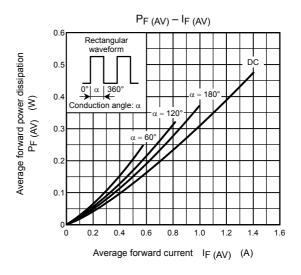


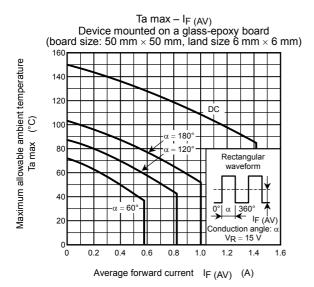
Handling Precaution

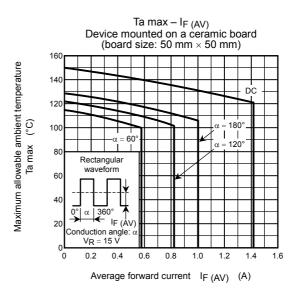
Schottky barrier diodes are having large-reverse-current-leakage characteristic compare to the other rectifier products. This current leakage and improper operating temperature or voltage may cause thermal runaway. Please take forward and reverse loss into consideration when you design.

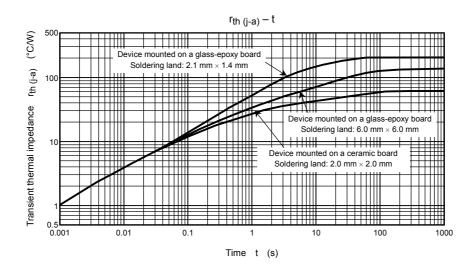
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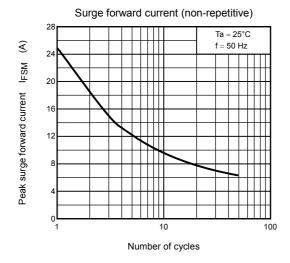


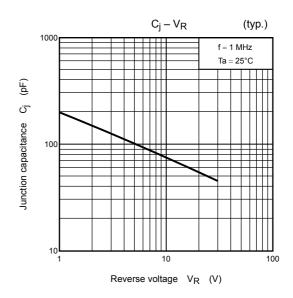


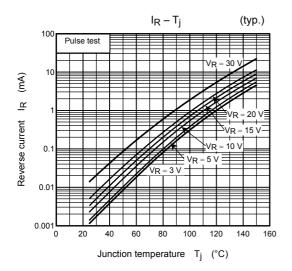


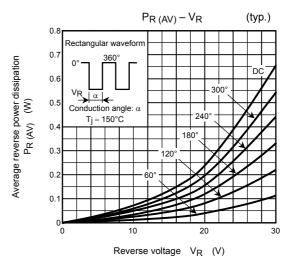


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