TOSHIBA Schottky Barrier Rectifier Schottky Barrier Type

CMS05

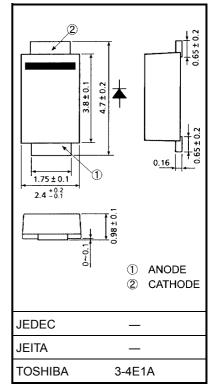
Switching Mode Power Supply Applications Portable Equipment Battery Applications

- Forward voltage: $V_{FM} = 0.45 V (max)$
- Average forward current: IF(AV) = 5.0 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	I _{F (AV)}	5.0 (Note)	А	
Peak one cycle surge forward current (non-repetitive)	I _{FSM}	70 (50 Hz)	А	
Junction temperature	Tj	-40~150	°C	
Storage temperature	T _{stg}	-40~150	°C	

Note: $T\ell = 100^{\circ}C$: Rectangular waveform ($\alpha = 180^{\circ}$), $V_R = 15 V$



Weight: 0.023 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit	
Peak forward voltage	V _{FM (1)}	I _{FM} = 1.0 A		0.35			
	V _{FM (2)}	I _{FM} = 3.0 A	_	0.40	_	V	
	V _{FM (3)}	I _{FM} = 5.0 A	_	0.43	0.45		
Repetitive peak reverse current	I _{RRM}	V _{RRM} = 5.0 V		6.0		μA	
	I _{RRM}	V _{RRM} = 30 V	_	65	800		
Junction capacitance	Cj	$V_{R} = 10 V, f = 1.0 MHz$	_	330	_	pF	
Thermal resistance	R _{th (j-a)}	Device mounted on a ceramic board (soldering land: $2 \text{ mm} \times 2 \text{ mm}$)	_	_	60	°C/W	
		Device mounted on a glass-epoxy board (soldering land: 6 mm × 6 mm)	_	_	135		
	R _{th (j-l)}	—			16		

Unit: mm

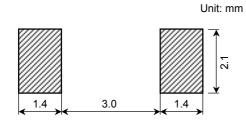
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Marking

Following Indicates the Data of Manufacture



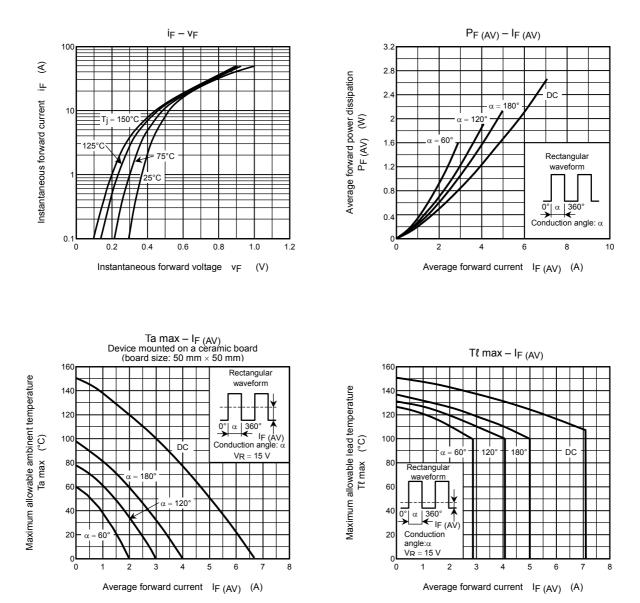
Standard Soldering Pad

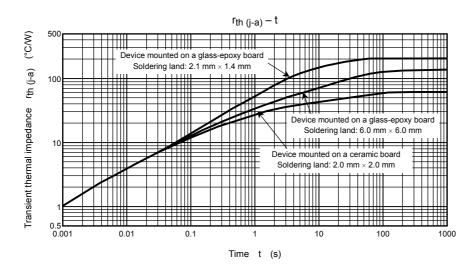


Handling Precaution

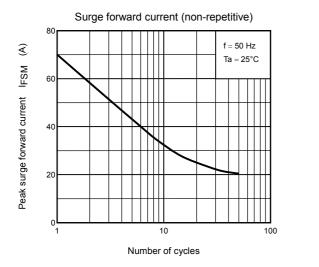
Schottky barrier diodes are having large-reverse-current-leakage characteristic compare to the other rectifier products. This current leakage and improper operating temperature or voltage may cause thermal runaway. Please take forward and reverse loss into consideration when you design.

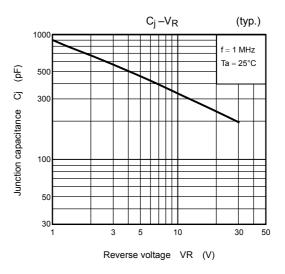
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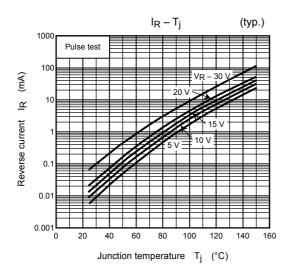


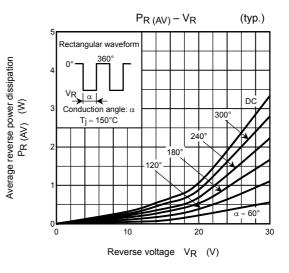


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