

CUS02

Switching Mode Power Supply Applications
 Portable Equipment Battery Application

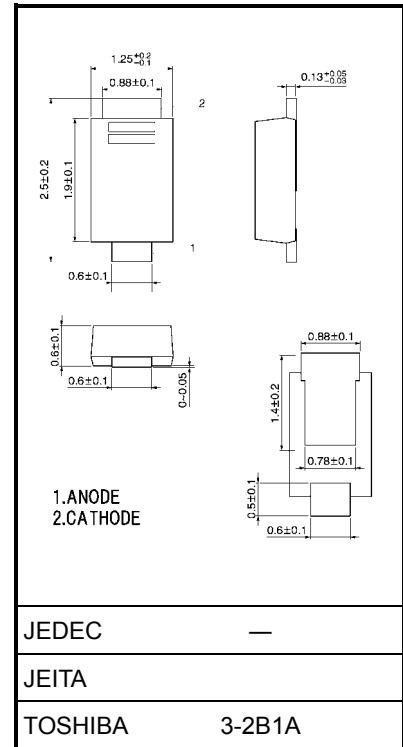
Unit: mm

- Forward voltage: $V_{FM} = 0.45 \text{ V}@I_F = 0.7 \text{ A}$
- Average forward current: $I_F (AV) = 1.0 \text{ A}$
- Repetitive peak reverse voltage: $V_{RRM} = 30 \text{ V}$
- Suitable for compact assembly due to small surface-mount package “US-FLAT™” (Toshiba package name)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Average forward current	$I_F (AV)$	1.0 (Note 1)	A
Peak one cycle surge forward current	I_{FSM}	20 (50 Hz)	A
Junction temperature	T_j	-40 to 150	°C
Storage temperature range	T_{stg}	-40 to 150	°C

Note 1: Ta = 52°C: Device mounted on a glass-epoxy board
 Board size: 50 mm × 50 mm,
 Land size: 6 mm × 6 mm
 Rectangular waveform ($\alpha = 180^\circ$), $V_R = 15 \text{ V}$



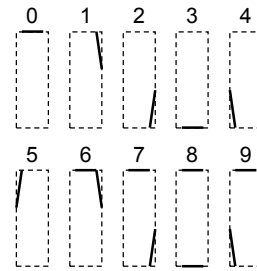
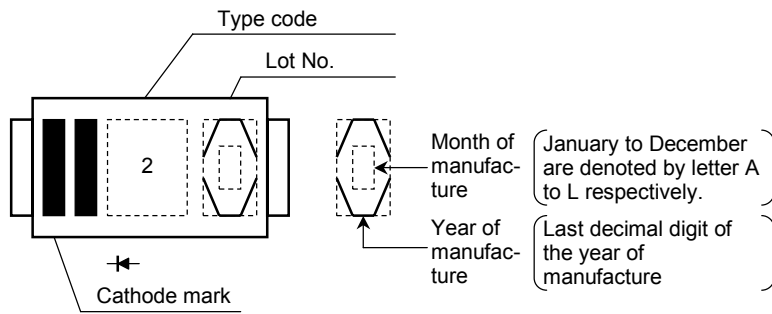
Weight: 0.004 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak forward voltage	$V_{FM} (1)$	$I_{FM} = 0.1 \text{ A}$	—	0.35	—	V
	$V_{FM} (2)$	$I_{FM} = 0.7 \text{ A}$	—	0.42	0.45	
	$V_{FM} (3)$	$I_{FM} = 1.0 \text{ A}$	—	0.47	—	
Repetitive peak reverse current	$I_{RRM} (1)$	$V_{RRM} = 5 \text{ V}$	—	0.7	—	μA
	$I_{RRM} (2)$	$V_{RRM} = 30 \text{ V}$	—	10	100	
Junction capacitance	C_j	$V_R = 10 \text{ V}, f = 1.0 \text{ MHz}$	—	40	—	pF
Thermal resistance (junction to ambient)	$R_{th} (j-a)$	Device mounted on a ceramic board (soldering land: 2 mm × 2 mm)	—	—	75	°C/W
		Device mounted on a glass-epoxy board (soldering land: 6 mm × 6 mm)	—	—	150	
Thermal resistance (junction to lead)	$R_{th} (j-l)$	Junction to lead of cathode side	—	—	30	°C/W

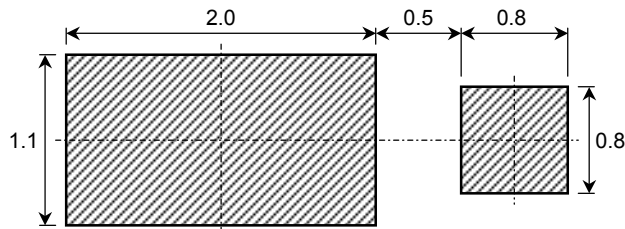
Marking

Following Indicates the Date of Manufacture



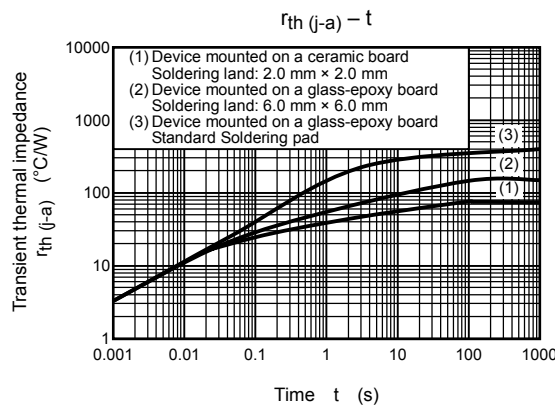
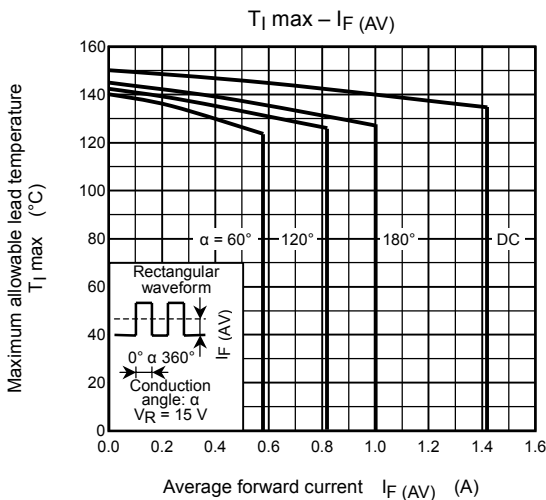
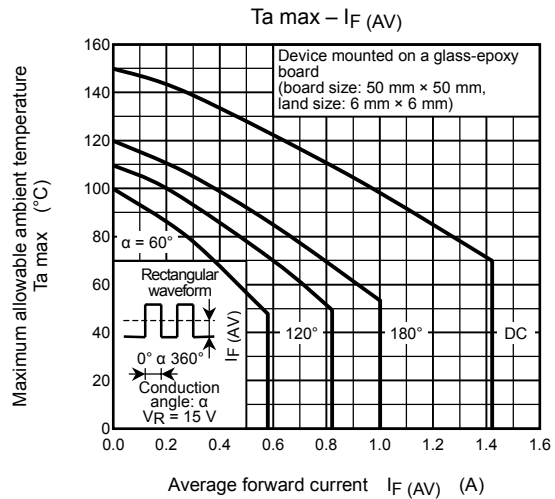
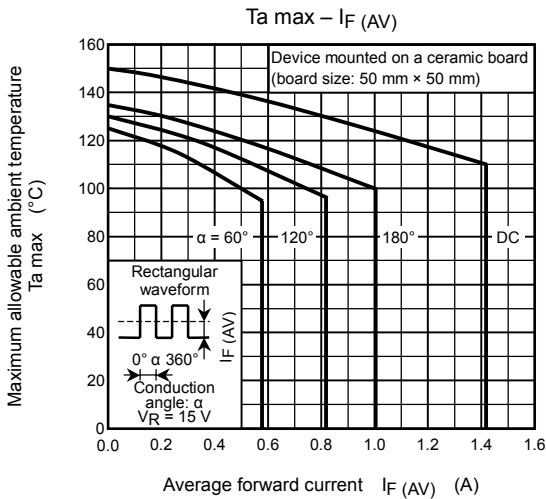
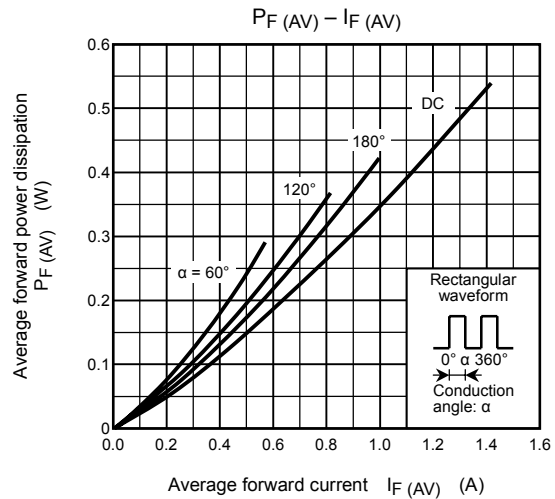
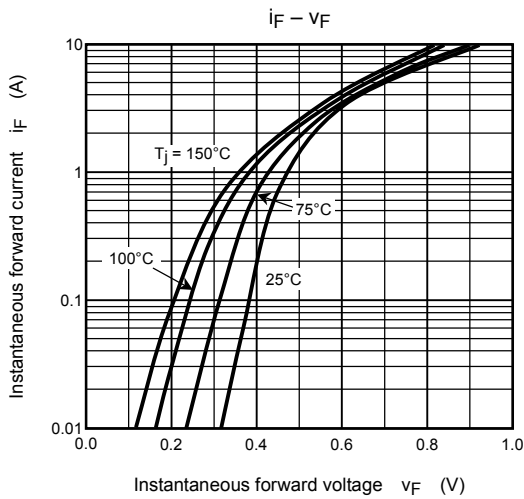
Standard Soldering Pad

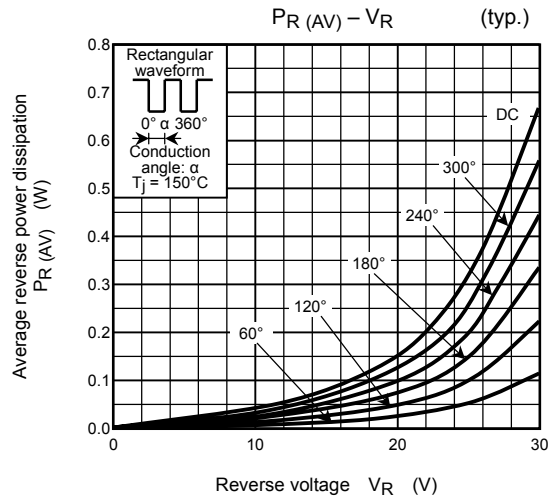
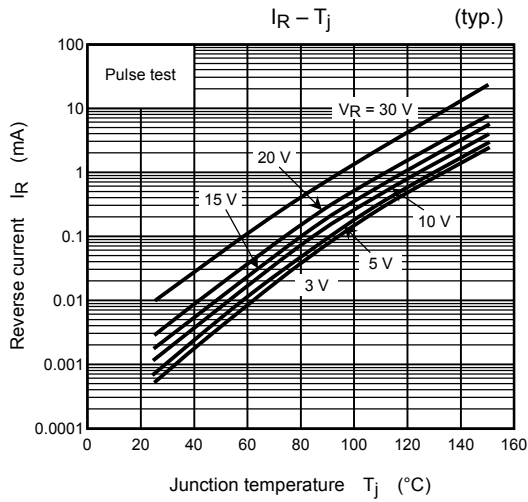
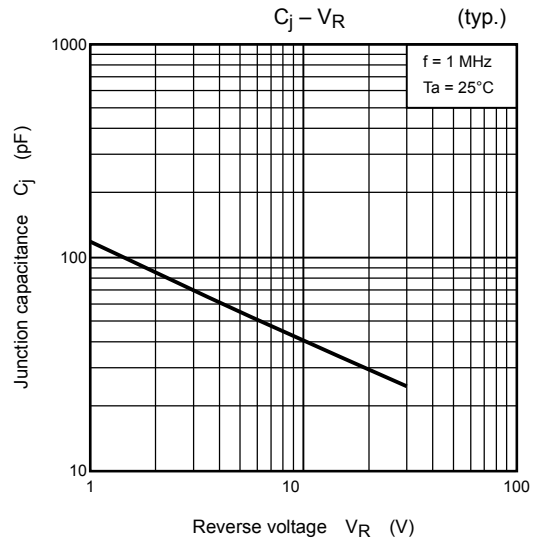
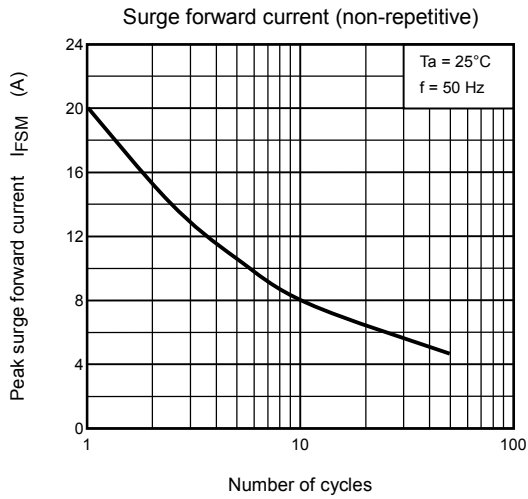
Unit: mm



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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