

# CUS02

Switching Mode Power Supply Applications  
 Portable Equipment Battery Application

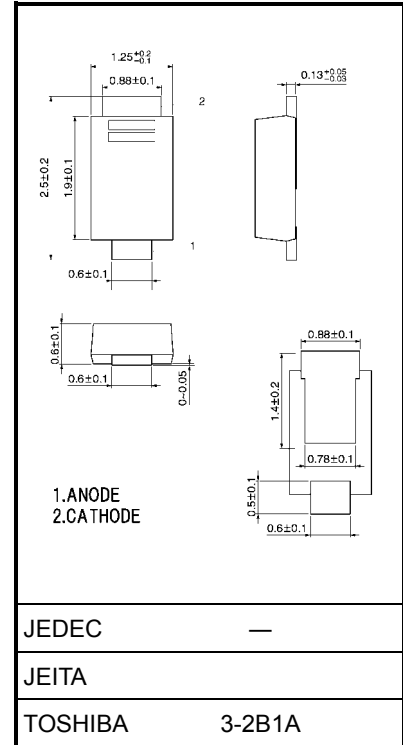
Unit: mm

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



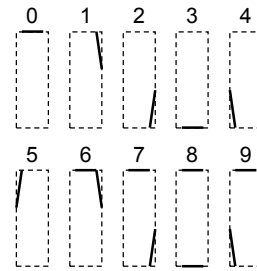
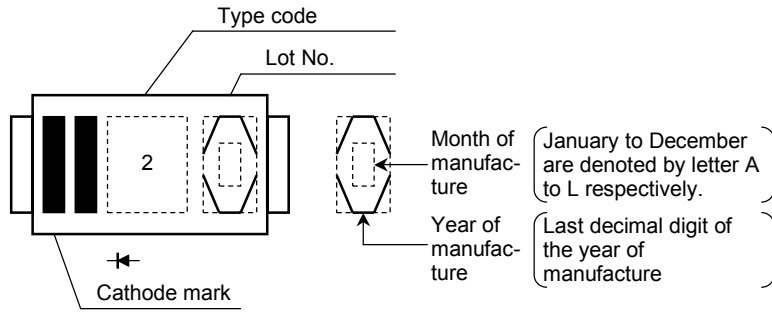
Weight: 0.004 g (typ.)

## 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

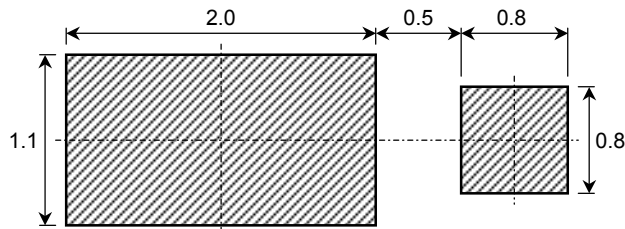
**Marking**

**Following Indicates the Date of Manufacture**



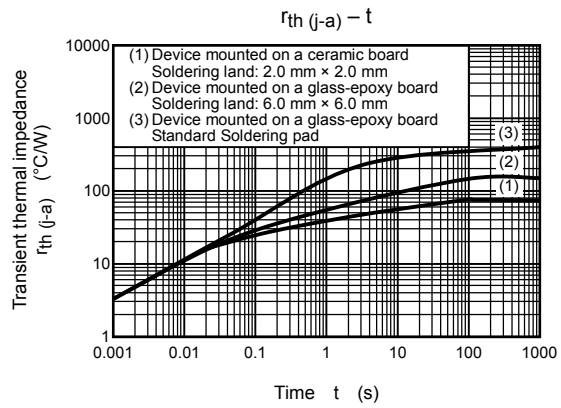
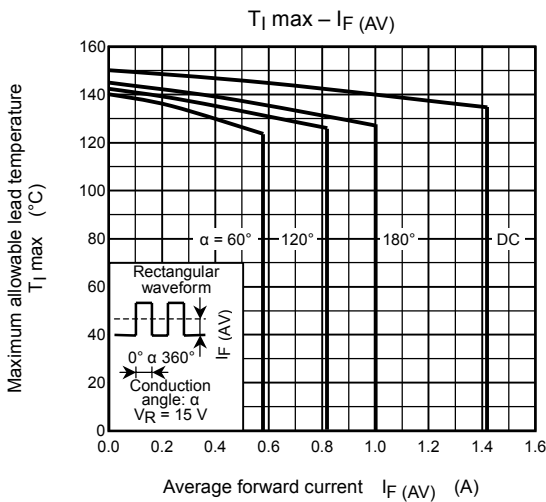
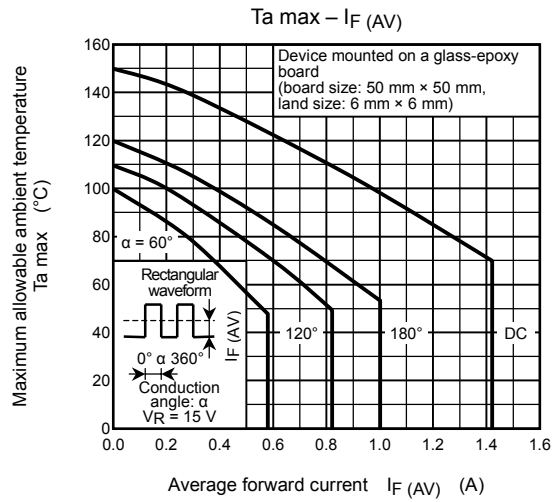
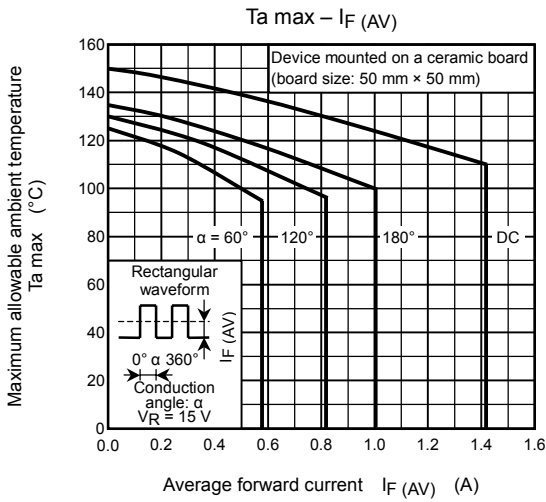
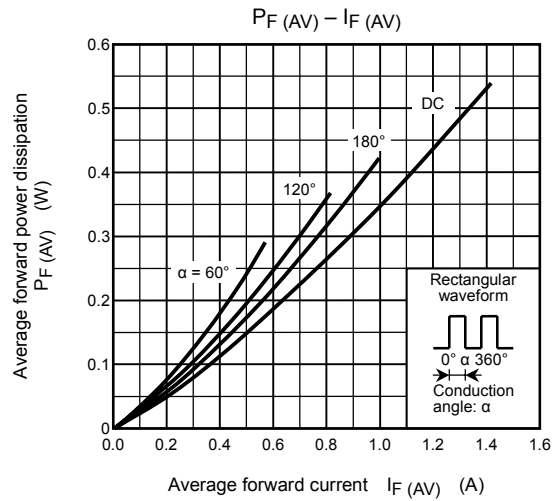
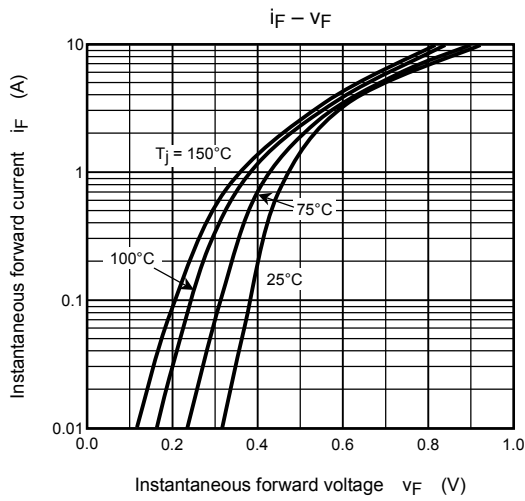
**Standard Soldering Pad**

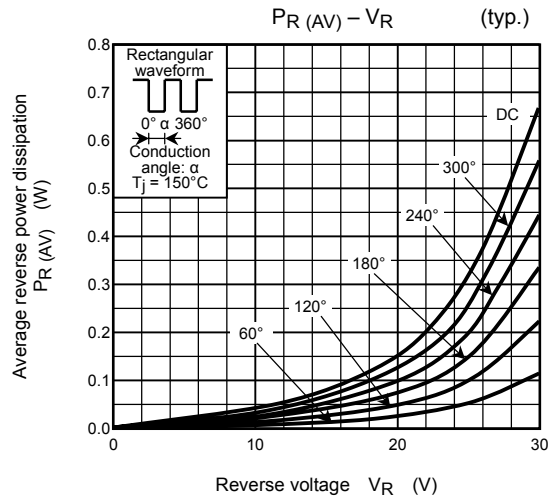
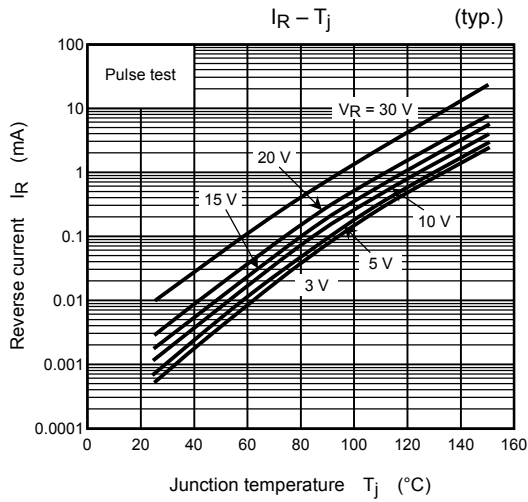
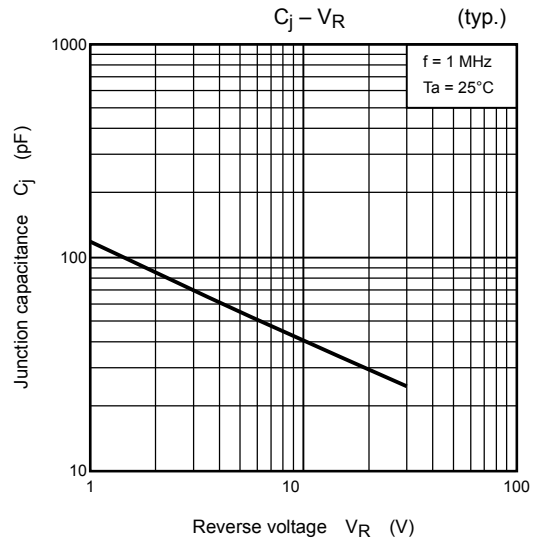
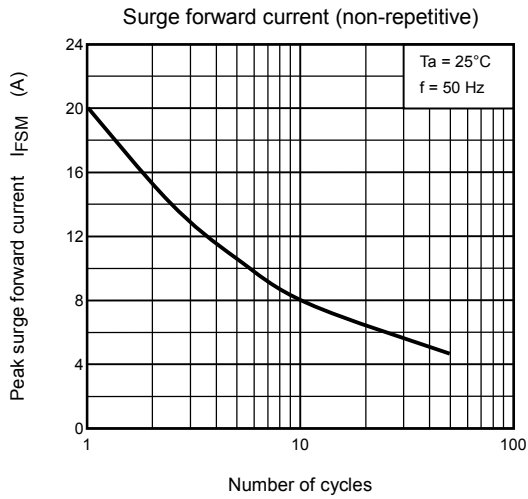
Unit: mm



**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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