

TOSHIBA Schottky Barrier Rectifier Schottky Barrier Type

TENTATIVE

CUS02

Switching mode power supply applications
 Portable equipment battery application

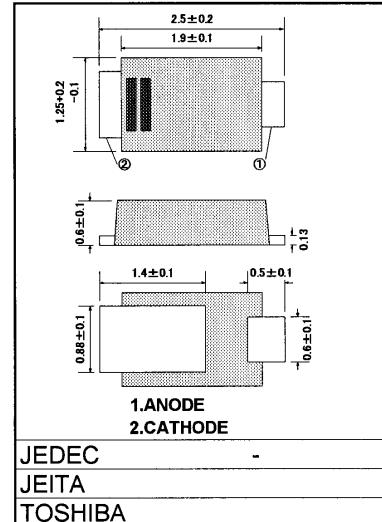
Forward Voltage : $V_{FM}=0.45V(\max)$
 Average Forward Current : $I_{F(AV)}=0.7A$
 Repetitive Peak Reverse Voltage : $V_{RRM}=30V$
 Small & Thin package "US-FLAT™"(Toshiba package name)

Maximum Ratings(Ta=25°C)

Characteristics	Symbol	Rating	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Average Forward Current	$I_{F(AV)}$	0.7	A
Peak one Cycle Surge Forward Current	I_{FSM}	20(50Hz)	A
Junction Temperature	T_j	-40 ~ 150	°C
Storage Temperature Range	T_{stg}	-40 ~ 150	°C

Note: Ta=77°C:On glass-epoxy substrate
 substrate size:50mm×50mm
 land size:6mm×6mm
 Rectangular waveform($\alpha=180^\circ$),VR=15V

Unit in mm

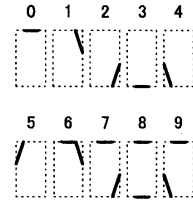
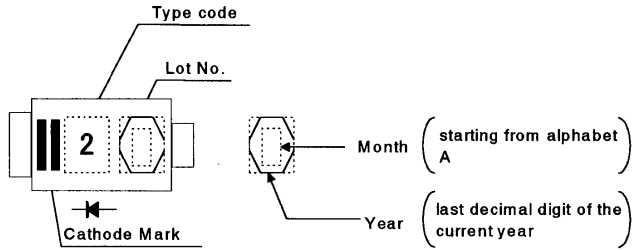


Electrical Characteristics (Ta=25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak Forward Voltage	$V_{FM(1)}$	$I_{FM}=0.1A$	-	0.35	-	V
	$V_{FM(2)}$	$I_{FM}=0.3A$	-	0.38	-	
	$V_{FM(3)}$	$I_{FM}=0.7A$	-	0.42	0.45	
Repetitive Peak Reverse Current	$I_{RRM(1)}$	$V_{RRM}=5V$	-	0.7	-	μA
	$I_{RRM(2)}$	$V_{RRM}=30V$	-	10	100	
Junction Capacitance	C_j	VR=10V, f=1.0MHz	-	40	-	pF
Thermal Resistance	Rth(j-a)	On ceramic substrate (Soldering Land 2mm×2mm)	-	-	75	°C/W
		On glass-epoxy substrate (Soldering Land 6mm×6mm)	-	-	150	
	Rth(j-l)	Junction to read of cathode side	-	-	30	

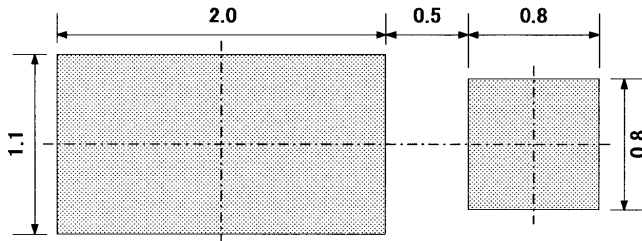
Marking

Following Indicates the Data of Manufacture



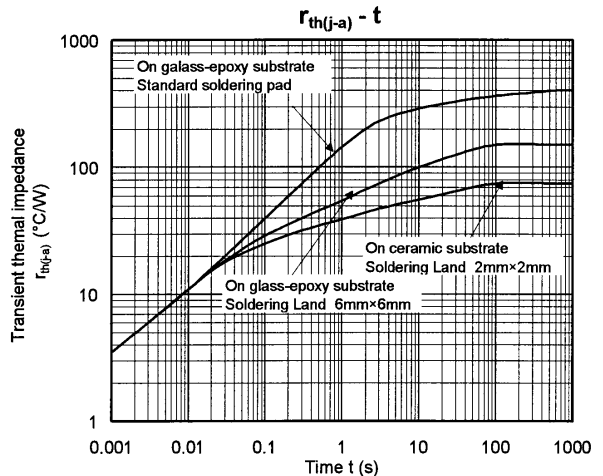
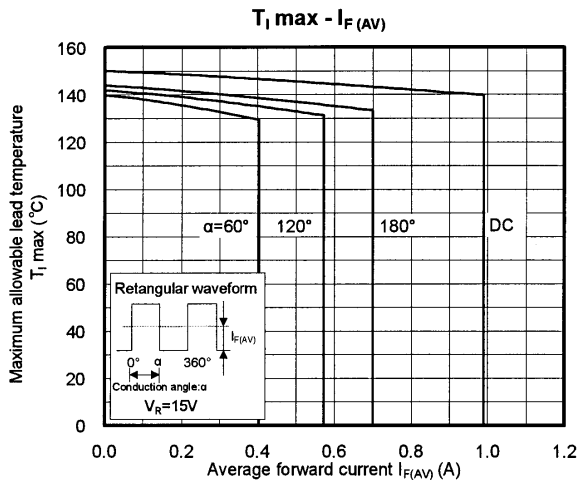
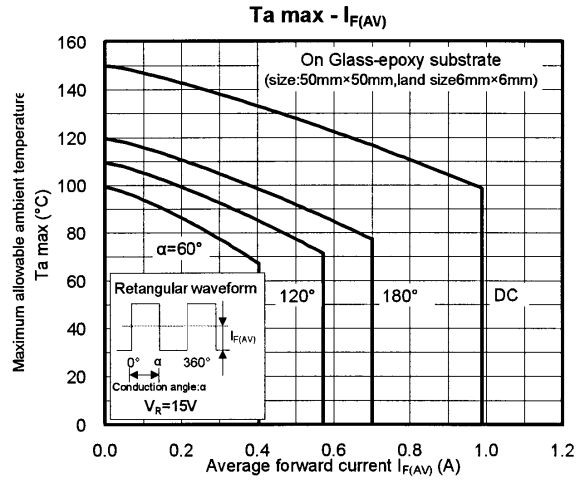
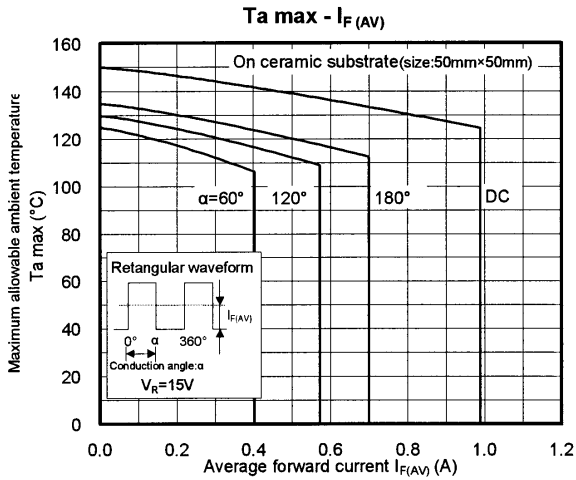
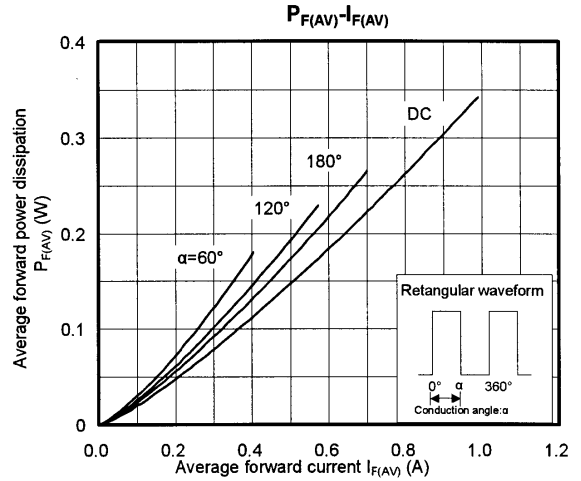
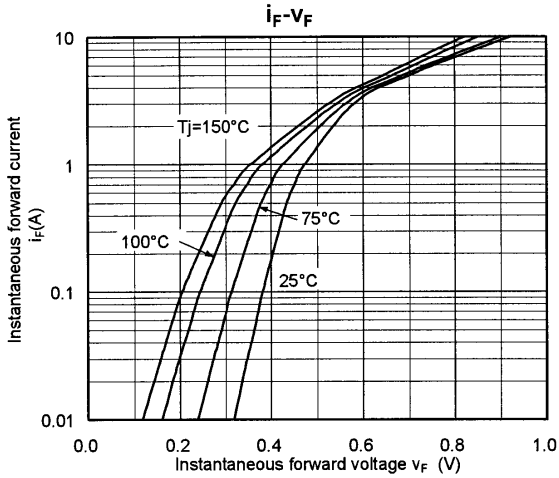
Standard Soldering Pad

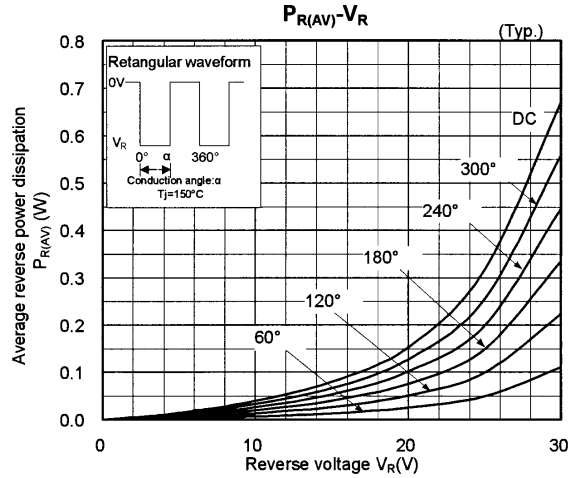
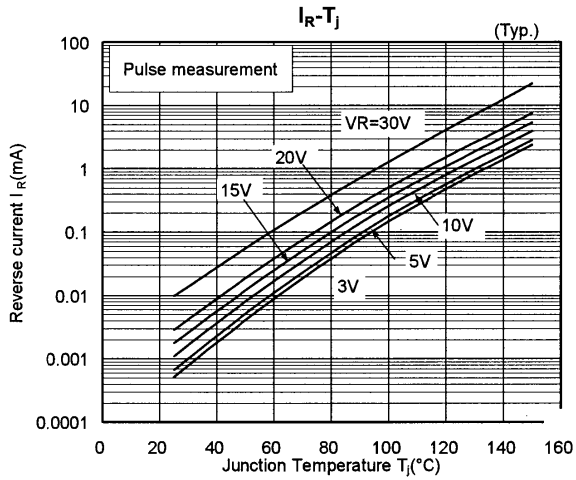
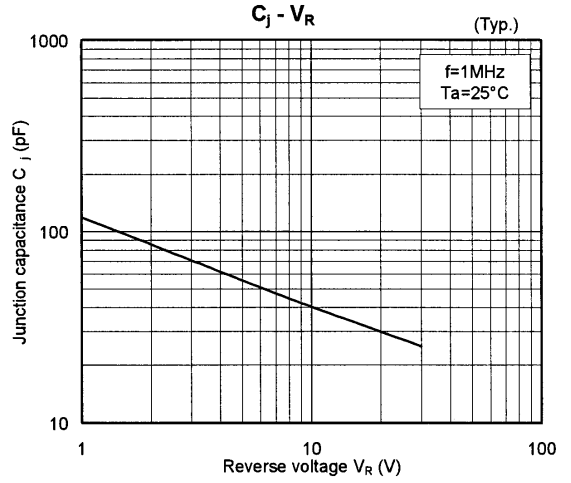
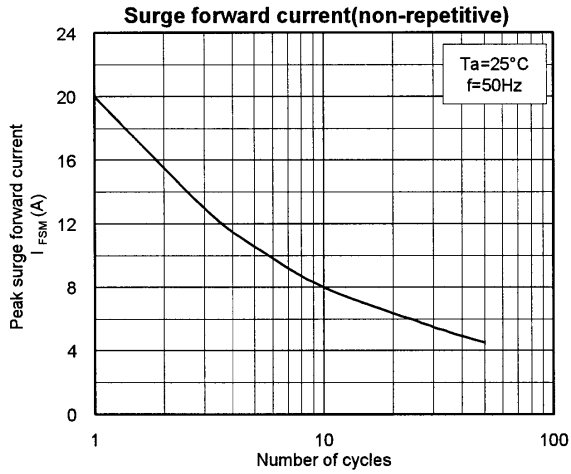
Unit in mm



Handling Precaution

Schottky barrier diodes are having large-reverse-current-leakage characteristic compare to the other rectifier products. This current leakage and not proper operating temperature or voltage may cause thermal runaway. Please take forward and reverse loss into consideration when you design.





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