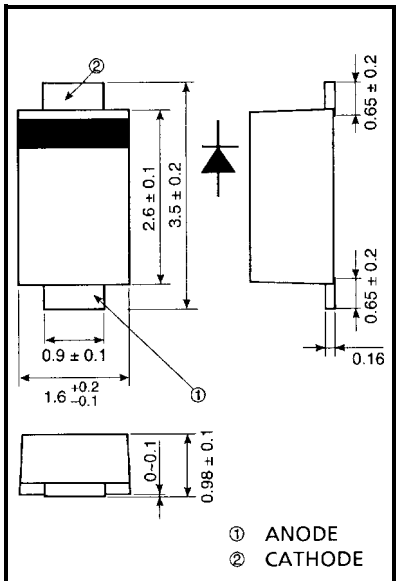
TOSHIBA Schottky Barrier Rectifier Schottky Barrier Type

CRS08

Switching Mode Power Supply Applications
Portable Equipment Battery Applications

- Forward voltage: V_{FM} = 0.36 V (max)
- Average forward current: $I_{F\ (AV)}$ = 1.5 A
- Repetitive peak reverse voltage: V_{RRM} = 30 V
- Suitable for compact assembly due to small surface-mount package "S−FLAT™" (Toshiba package name)

Unit: mm



JEDEC	—
JEITA	—
TOSHIBA	3-2A1A

Weight: 0.013 g (typ.)

Maximum Ratings (Ta = 25°C)

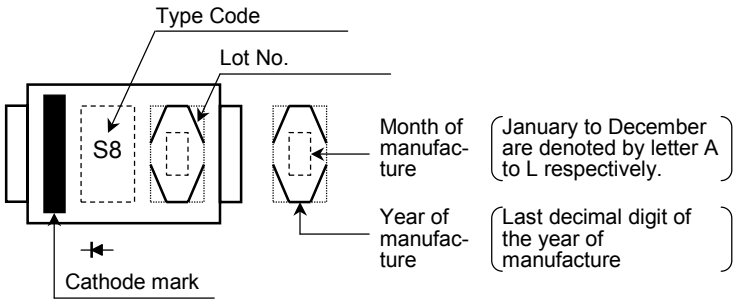
Characteristics	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Average forward current	$I_{F\ (AV)}$	1.5 (Note)	A
Peak one cycle surge forward current (non-repetitive)	I_{FSM}	30 (50 Hz)	A
Junction temperature	T_j	−40~125	°C
Storage temperature	T_{stg}	−40~150	°C

Note: Tℓ = 86°C: Rectangular waveform (α = 180°C), VR = 15 V

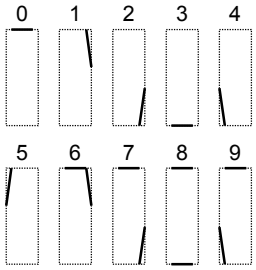
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Peak forward voltage	$V_{FM\ (1)}$	I_{FM} = 0.1 A	—	0.23	—	V
	$V_{FM\ (2)}$	I_{FM} = 1.0 A	—	0.32	—	
	$V_{FM\ (3)}$	I_{FM} = 1.5 A	—	0.345	0.36	
Repetitive peak reverse current	$I_{RRM\ (1)}$	V_{RRM} = 5 V	—	50	—	μA
	$I_{RRM\ (2)}$	V_{RRM} = 30 V	—	—	1.0	mA
Junction capacitance	C_j	V_R = 10 V, f = 1.0 MHz	—	90	—	pF
Thermal resistance (junction to ambient)	$R_{th\ (j\text{-}a)}$	Device mounted on a ceramic board (soldering land: 2 mm × 2 mm)	—	—	70	°C/W
		Device mounted on a glass-epoxy board (soldering land: 6 mm × 6 mm)	—	—	140	
Thermal resistance (junction to lead)	$R_{th\ (j\text{-}\ell)}$	—	—	—	20	°C/W

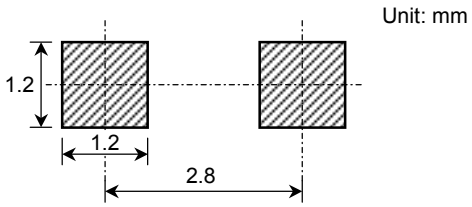
Marking



Following Indicates the Date of Manufacture



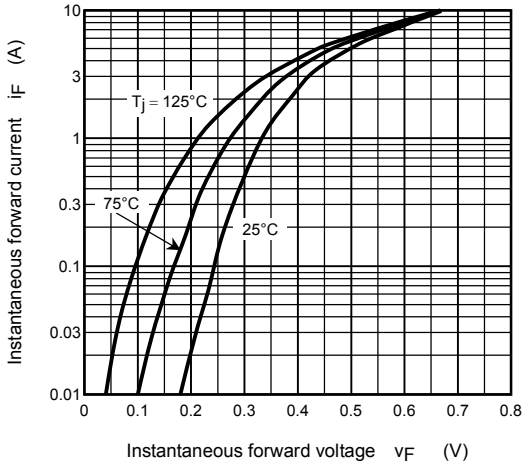
Standard Soldering Pad



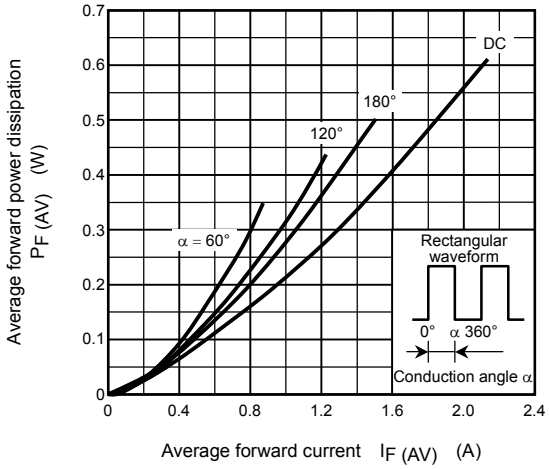
Handling Precaution

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.

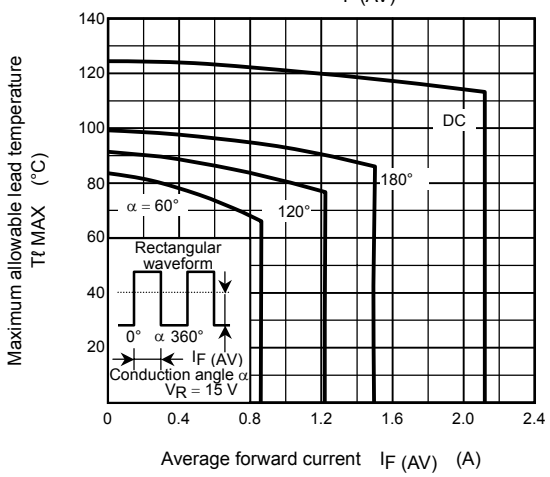
$i_F - v_F$



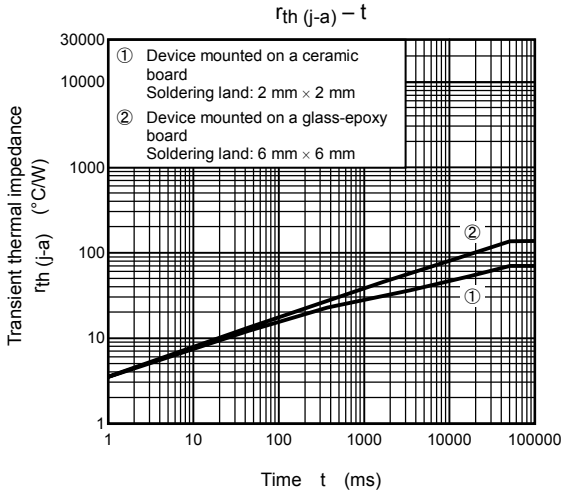
$P_{F\ (AV)} - I_{F\ (AV)}$



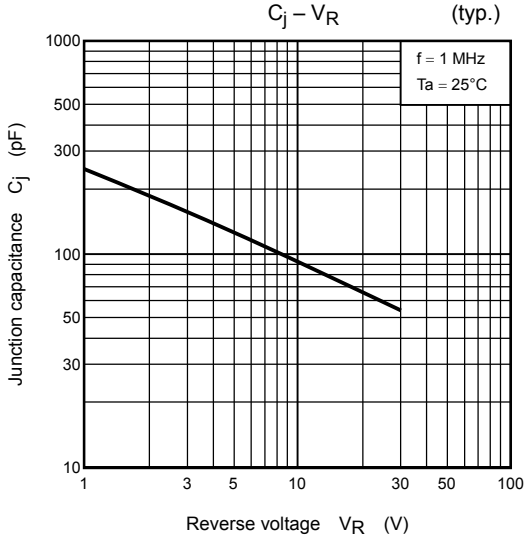
T_ℓ max – $I_{F\ (AV)}$



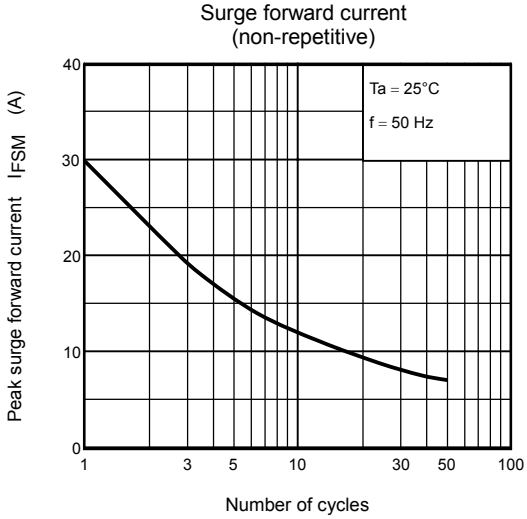
$r_{th\ (j\text{-}a)} - t$



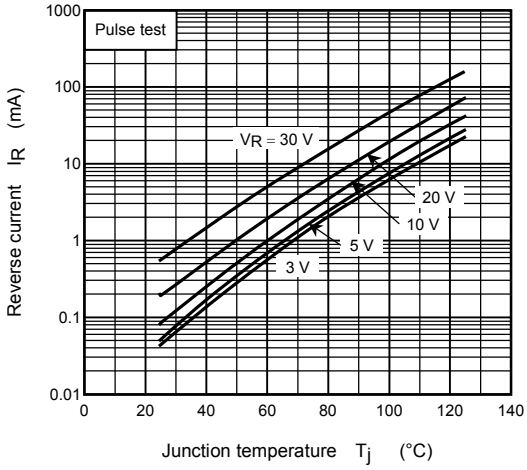
$C_j - V_R$ (typ.)



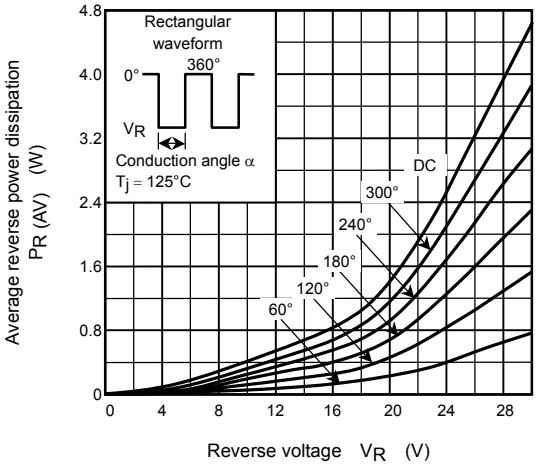
Surge forward current (non-repetitive)



$I_R - T_j$ (typ.)



$P_{R\ (AV)} - V_R$ (typ.)



RESTRICTIONS ON PRODUCT USE

000707EAA

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