

## TOSHIBA SCHOTTKY BARRIER RECTIFIER SCHOTTKY BARRIER TYPE

# CMS05

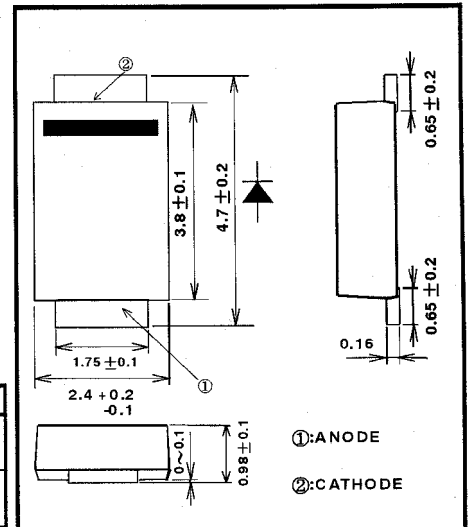
Unit:mm

- SWITCHING MODE POWER SUPPLY APPLICATIONS
- PORTABLE EQUIPMENT BATTERY APPLICATIONS

- Forward Voltage :  $V_{FM}=0.45V(\text{Max.})$
- Average Forward Current :  $I_{F(AV)}=5.0A$
- Repetitive Peak Reverse Voltage :  $V_{RRM}=30V$
- Small & Thin Package  
M-FLAT™ (Toshiba package name)

● MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Average Forward Current	$I_{F(AV)}$	5.0 ( $T_I=100^\circ\text{C}$ )	A
Peak One Cycle Surge Forward Current(Non-Repetitive)	$I_{FSM}$	70(50Hz)	A
Junction Temperature	$T_J$	-40~150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40~150	$^\circ\text{C}$



JEDEC	-
EIAJ	-
TOSHIBA	-

Weight:0.023g

● ELECTRICAL CHARACTERISTICS( $T_a=25^\circ\text{C}$ )

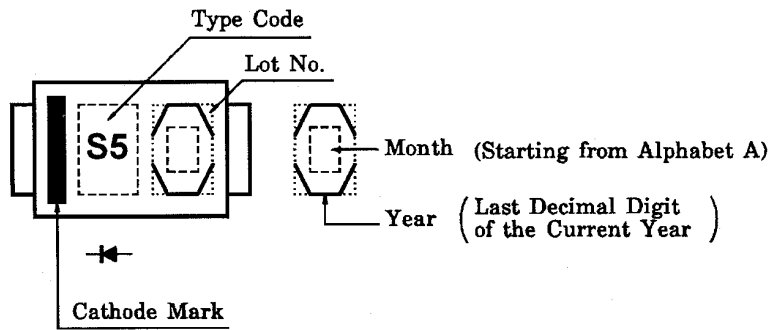
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	$V_{FM(1)}$	$I_{FM}=1.0A$	-	0.35	-	V
	$V_{FM(2)}$	$I_{FM}=3.0A$	-	0.40	-	V
	$V_{FM(3)}$	$I_{FM}=5.0A$	-	0.43	0.45	V
Repetitive Peak Reverse Current	$I_{RRM}$	$V_{RRM}=5.0V$	-	6.0	-	$\mu\text{A}$
	$I_{RRM}$	$V_{RRM}=30V$	-	65	800	$\mu\text{A}$
Junction Capacitance	$C_j$	$V_R=10V, f=1.0\text{MHz}$	-	330	-	pF
Thermal Resistance	$R_{th(j-a)}$	On ceramic substrate (Soldering Land 2mm×2mm)	-	-	60	$^\circ\text{C/W}$
		On glass-epoxy substrate (Soldering Land 6mm×6mm)	-	-	135	$^\circ\text{C/W}$
	$R_{th(j-l)}$	-	-	-	16	$^\circ\text{C/W}$

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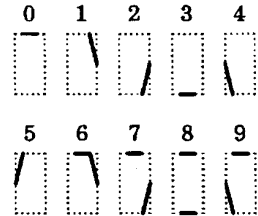
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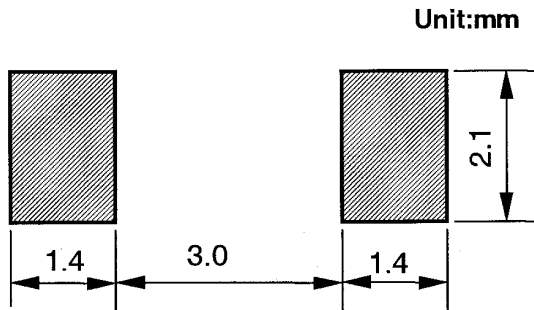
### MARKING



### 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 not proper operating temperature or voltage may cause thermal run.

Please take forward and reverse loss into consideration when you design

