

TOSHIBA SCHOTTKY BARRIER RECTIFIER SCHOTTKY BARRIER TYPE

# CRS03

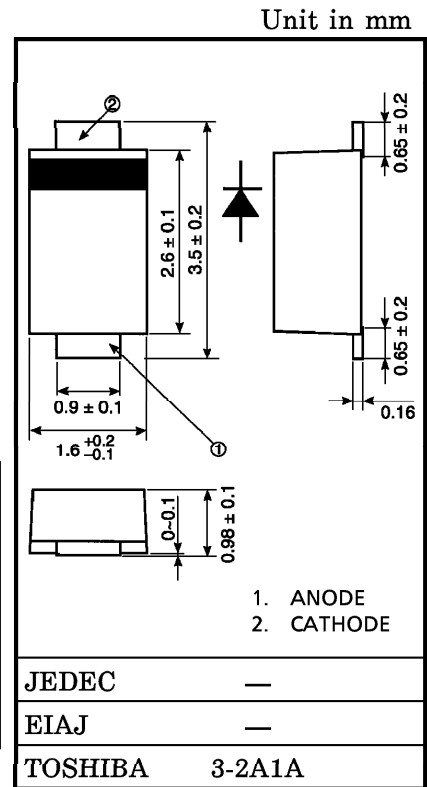
SWITCHING TYPE POWER SUPPLY APPLICATIONS

PORTABLE EQUIPMENT BATTERY APPLICATIONS

- Low Forward Voltage :  $V_{FM} = 0.45 \text{ V (Max.)}$
- Average Forward Current :  $I_F (AV) = 1.0 \text{ A}$
- Repetitive Peak Reverse Voltage :  $V_{RRM} = 30 \text{ V}$
- Small and Thin Package : S-FLAT™  
(Toshiba Package Name)

**MAXIMUM RATINGS**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Average Forward Current	$I_F (AV)$	1.0	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	$I_{FSM}$	20 (50 Hz)	A
Junction Temperature	$T_j$	-40~150	°C
Storage Temperature Range	$T_{stg}$	-40~150	°C



Weight : 0.013 g

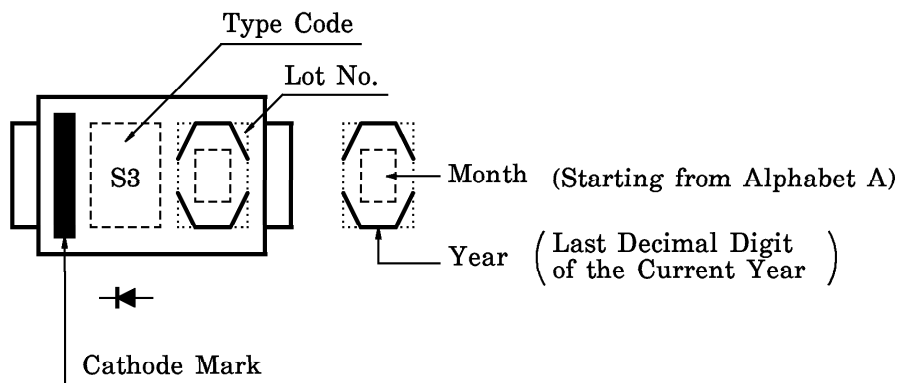
**ELECTRICAL CHARACTERISTICS (Ta = 25°C)**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	$V_{FM} (1)$	$I_{FM} = 0.1 \text{ A}$	—	0.35	—	V
	$V_{FM} (2)$	$I_{FM} = 0.7 \text{ A}$	—	0.425	0.45	V
	$V_{FM} (3)$	$I_{FM} = 1.0 \text{ A}$	—	0.45	—	V
Repetitive Peak Reverse Current	$I_{RRM} (1)$	$V_{RRM} = 5 \text{ V}$	—	0.5	—	μA
	$I_{RRM} (2)$	$V_{RRM} = 30 \text{ V}$	—	—	100	μA
Junction Capacitance	$C_j$	$V_R = 10 \text{ V}, f = 1.0 \text{ MHz}$	—	40	—	pF
Thermal Resistance	$R_{th} (j-a)$	On ceramic substrate	—	—	70	°C / W
		On glass-epoxy substrate	—	—	140	

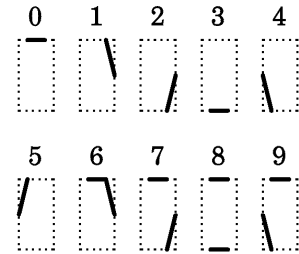
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**MARKING**

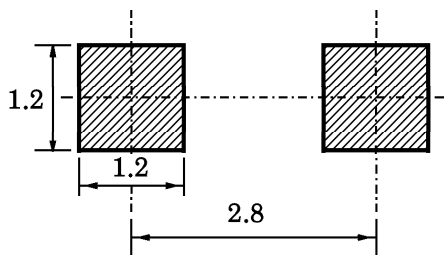


**FOLLOWING INDICATES THE DATE OF MANUFACTURE**



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

Please take forward and reverse loss into consideration when you design.

