**TOSHIBA** CRS04

#### TOSHIBA SCHOTTKY BARRIER RECTIFIER SCHOTTKY BARRIER TYPE

# **CRS04**

### SWITCHING TYPE POWER SUPPLY APPLICATIONS

### PORTABLE EQUIPMENT BATTERY APPLICATIONS

:  $V_{FM} = 0.49 V \text{ (Max.)}$ Forward Voltage

Average Forward Current :  $I_{F(AV)} = 1.0 A$ 

Repetitive Peak Reverse Voltage :  $V_{RRM} = 40 V$ 

: S-FLAT TM (Toshiba designation) Small Package

### MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Average Forward Current	I <sub>F (AV)</sub>	1.0	Α
Peak One Cycle Surge Forward Current (Non-Repetitive)	$I_{FSM}$	20 (50 Hz)	A
Junction Temperature	$T_{j}$	-40~150	$^{\circ}\mathrm{C}$
Storage Temperature Range	$\mathrm{T_{stg}}$	-40~150	$^{\circ}\mathrm{C}$

# Unit in mm $0.9 \pm 0.1$ 0.16 1.6 <sup>+0.2</sup> 1. ANODE 2. CATHODE **JEDEC EIAJ** TOSHIBA 3-2A1A

Weight: 0.013 g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	V <sub>FM (1)</sub>	$I_{\text{FM}} = 0.1 \text{ A}$	_	0.395	_	V
	V <sub>FM (2)</sub>	$I_{\text{FM}} = 0.7 \text{A}$	_	0.475	0.49	V
	V <sub>FM (3)</sub>	$I_{\text{FM}} = 1.0 \text{ A}$	_	0.51	_	V
Repetitive Peak Reverse	IRRM (1)	$V_{RRM} = 5 V$	_	0.6	_	$\mu$ A
Current	I <sub>RRM (2)</sub>	$V_{RRM} = 40 V$	_	_	100	$\mu$ A
Junction Capacitance	$\mathbf{C_{j}}$	$ m V_R = 10~V,~f = 1.0~MHz$		47	_	pF
Thermal Resistance R <sub>th (</sub>	D. a.	On ceramic substrate (Soldering Land 2 mm × 2 mm)	_	_	70	°C/W
	"th (j-a)	On glass-epoxy substrate (Soldering Land 6 mm × 6 mm)	_	_	140	°C/W

### 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.

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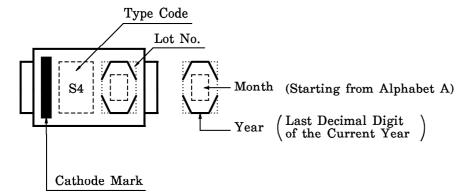
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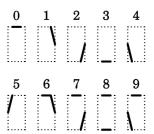
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# **MARKING**



FOLLOWING INDICATES
THE DATE OF MANUFACTURE



# STANDARD SOLDERING PAD

Unit: mm

