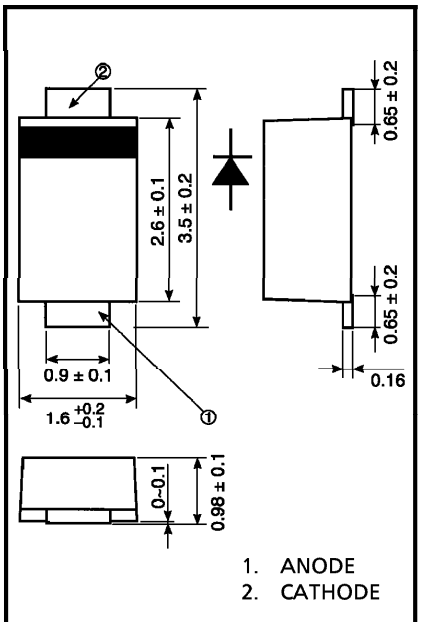
TOSHIBA SCHOTTKY BARRIER RECTIFIER SCHOTTKY BARRIER TYPE

CRS01

HIGH SPEED RECTIFIER APPLICATIONS

- Low Forward Voltage : V_{FM} = 0.37 V @I_{FM} = 0.7 A
- Average Forward Current : $I_{F(AV)}$ = 1.0 A
- Repetitive Peak Reverse Voltage : V_{RRM} = 30 V
- Small Package : "S-FLAT" (Toshiba designation)

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	3-2A1A

Weight : 0.013 g

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
		22 (60 Hz)	
Junction Temperature	T_j	−40~125	°C
Storage Temperature Range	T_{stg}	−40~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	TYP.	MAX.	UNIT
Peak Forward Voltage	$V_{FM(1)}$	I_{FM} = 0.1 A	0.25	—	V
	$V_{FM(2)}$	I_{FM} = 0.7 A	0.33	0.37	
	$V_{FM(3)}$	I_{FM} = 1.0 A	0.36	—	
Repetitive Peak Reverse Current	I_{RRM}	I_{RRM} = 30 V	—	1.5	mA
Junction Capacitance	C_j	V_R = 10 V, f = 1 MHz	40.0	—	pF
Thermal Resistance	$r_{th(j-a)}$	On ceramic substrate	—	70	°C / W
		On glass-epoxy substrate	—	140	

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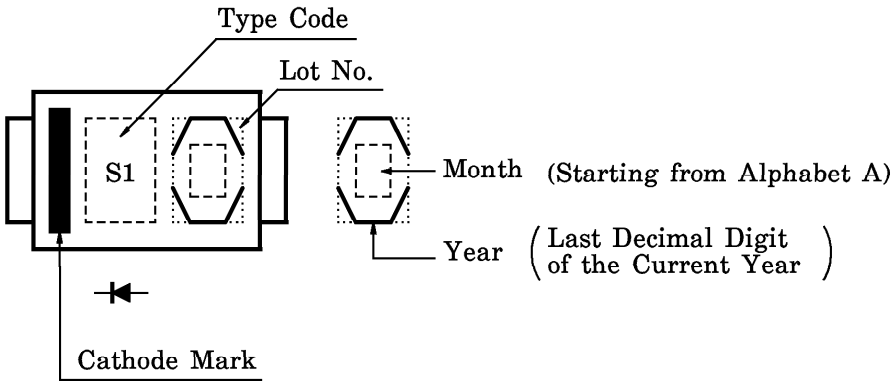
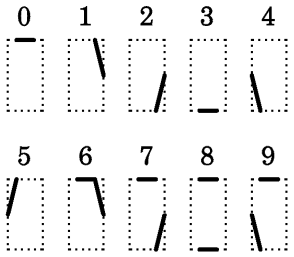
MARKING

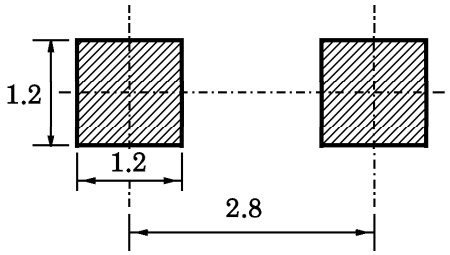


FOLLOWING INDICATES
THE DATE OF MANUFACTURE

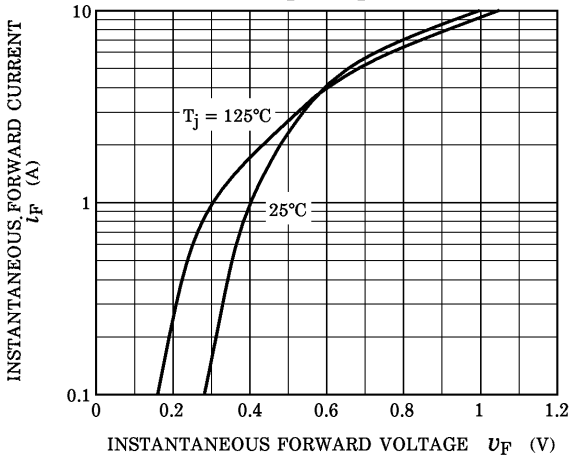


STANDARD SOLDERING PAD

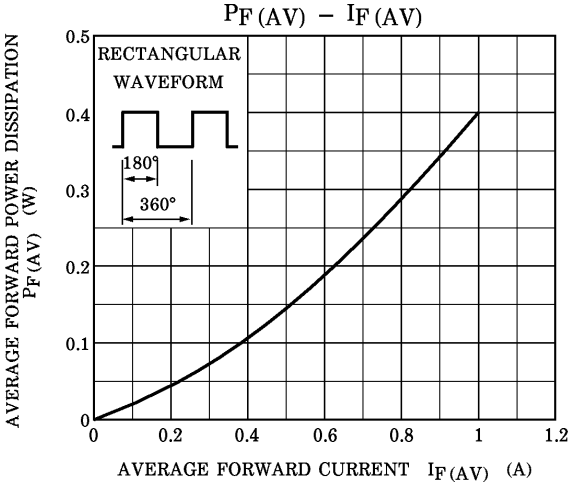
Unit : mm



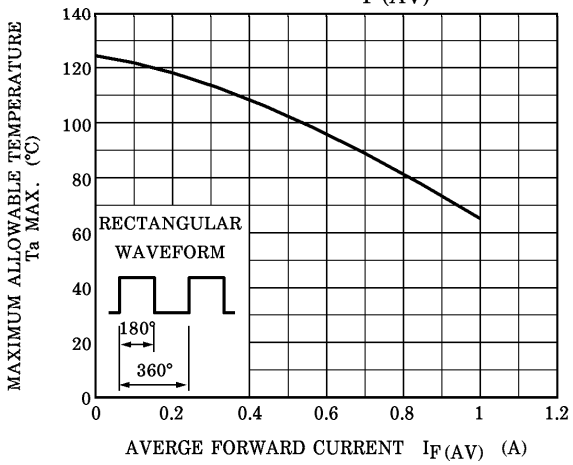
$i_F - v_F$



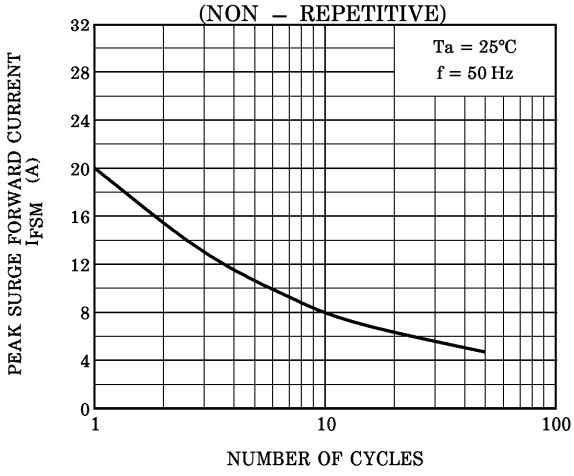
$P_{F(AV)} - I_{F(AV)}$



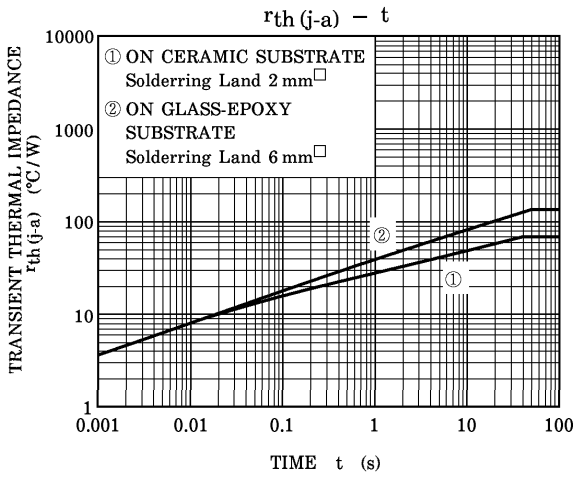
Ta MAX. – $I_{F(AV)}$



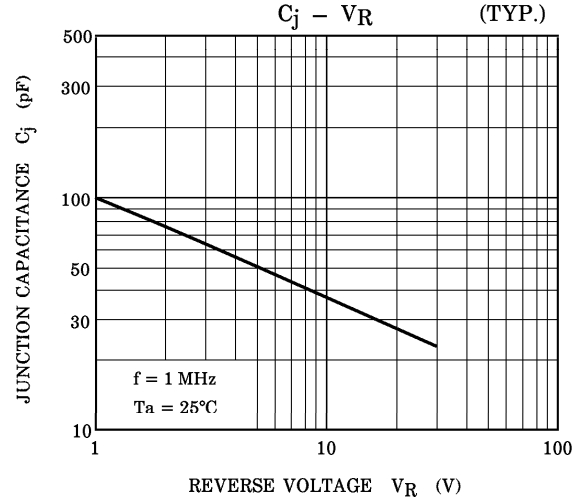
SURGE FORWARD CURRENT (NON – REPETITIVE)

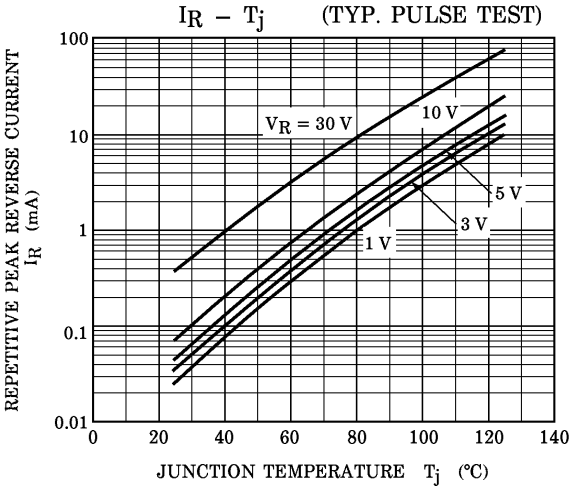


$r_{th(j\text{-}a)} - t$



$C_j - V_R$ (TYP.)




I_R – T_j (TYP. PULSE TEST)
REPETITIVE PEAK REVERSE CURRENT I_R (mA)
100
10
1
0.1
0.01
0
20
40
60
80
100
120
140
JUNCTION TEMPERATURE T_j (°C)
V_R = 30 V
10 V
5 V
3 V
1 V