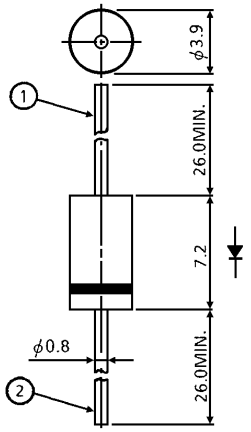
TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

TVR4J, TVR4N

HIGH SPEED RECTIFIER APPLICATIONS (FAST RECOVERY)

Unit in mm

- Repetitive Peak Reverse Voltage : V_{RRM} = 600, 1000 V
- Average Forward Current : $I_{F\,(AV)}$ = 1.2 A (Ta = 55°C)
- Reverse Recovery Time : t_{rr} = 20 μs



1. ANODE
2. CATHODE

JEDEC	—
EIAJ	—
TOSHIBA	3-4B1A

Weight : 0.47 g

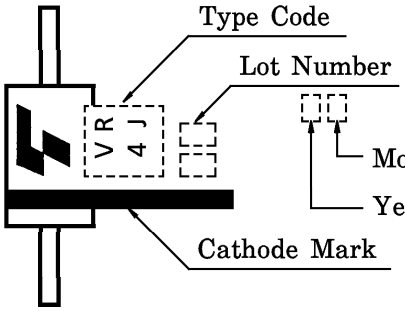
MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	TFR4J	V_{RRM}	600	V
	TFR4N		1000	
Average Forward Current (Ta = 55°C)		$I_{F\,(AV)}$	1.2	A
Peak One Cycle Surge Forward Current (Non Repetitive)		I_{FSM}	100 (50 Hz)	A
Junction Temperature		T_j	−40~150	°C
Storage Temperature Range		T_{stg}	−40~150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	V_{FM}	I_{FM} = 5 A	—	—	1.2	V
Repetitive Peak Reverse Current	I_{RRM}	V_{RRM} = Rated	—	—	10	μA
Reverse Recovery Time	t_{rr}	I_F = 20 mA, I_R = 1 mA	—	—	20	μs
Thermal Resistance (Junction to Ambient)	$R_{th\,(j\text{-}a)}$	DC	—	—	80	°C / W

MARKING



Color : Silver

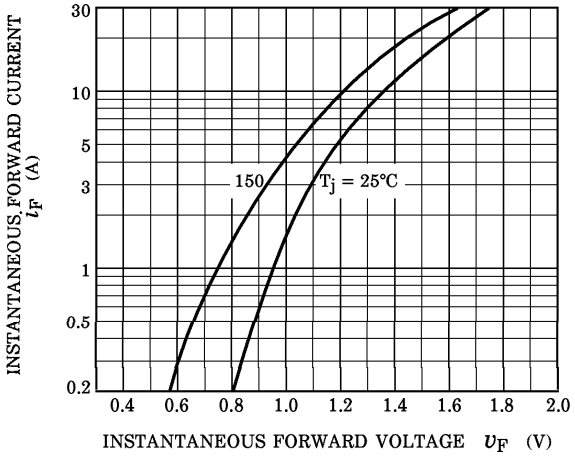
Month (Starting from Alphabet A)

Year (Last Number of the Christian Era)

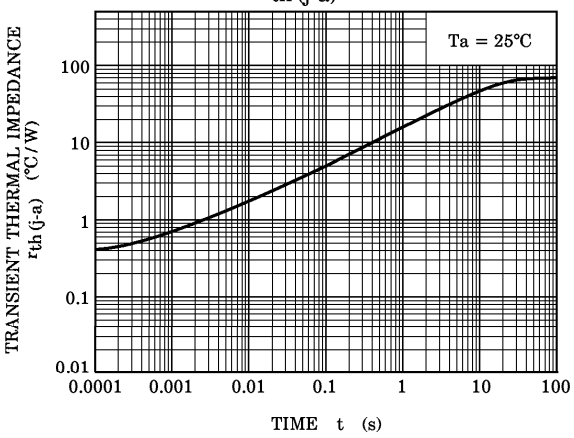
CODE	TYPE
VR4J	TVR4J
VR4N	TVR4N

961001EAA2

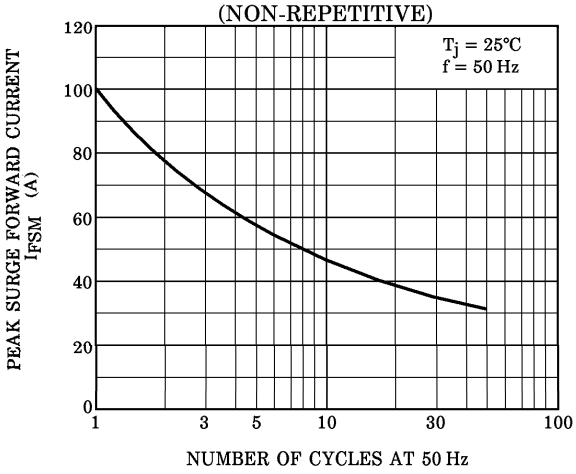
$i_F - v_F$



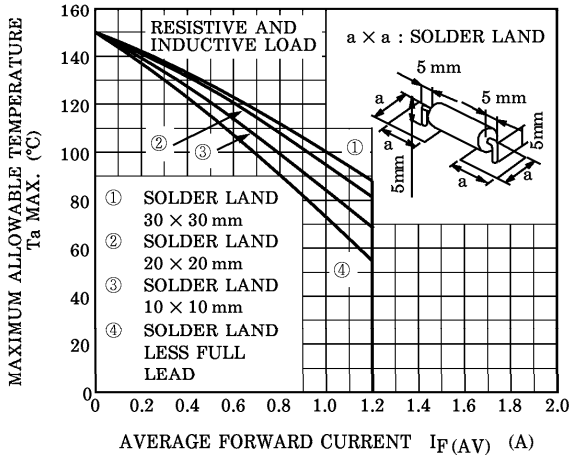
$r_{th\,(j\text{-}a)} - t$



SURGE FORWARD CURRENT (NON-REPETITIVE)



Ta MAX. – $I_{F\,(AV)}$



Ta MAX. – $I_{F\,(AV)}$