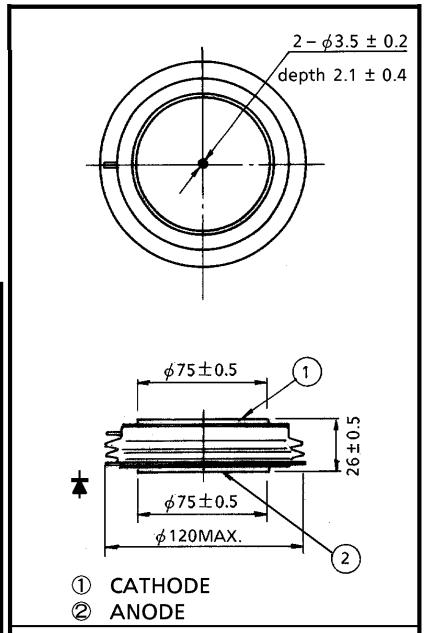
TENTATIVE TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

1200JXH23

HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage : V_{RRM} = 6000 V
- Average Forward Current : $I_{F(AV)}$ = 1200 A
- Double Side Cooling



JEDEC	—
EIAJ	—
TOSHIBA	3-120C1A

Weight : 1300 g

MAXIMUM RATING

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	6000	V
Non-Repetitive Peak Reverse Voltage (Non-Repetitive ≦ 5 ms, T_j ≦ 0~125°C)	V_{RSM}	6300	V
Average Forward Current	$I_{F(AV)}$	1200	A
Peak One Cycle Surge Forward Current (Non-Repetitive, 10 ms Width Half Sine Waveform)	I_{FSM}	15000	A
Junction Temperature Range	T_j	−40~125	°C
Storage Temperature Range	T_{stg}	−40~125	°C
Mounting Force	—	37.3 ± 7.8	kN

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	TYP.	MAX	UNIT
Repetitive Peak Reverse Current	I_{RRM}	V_{RRM} = 4500 V, T_j = 125°C	—	150	mA
Peak Forward Voltage	V_{FM}	I_{FM} = 3800 A, T_j = 125°C	—	4.4	V
Reverse Recovery Charge	Q_{rr}	I_F = 1200 A, T_j = 125°C di_F/dt = 100 A/μs	—	4000	μC
Thermal Resistance	$R_{th(j-f)}$	Junction to Fin	—	0.012	°C/W

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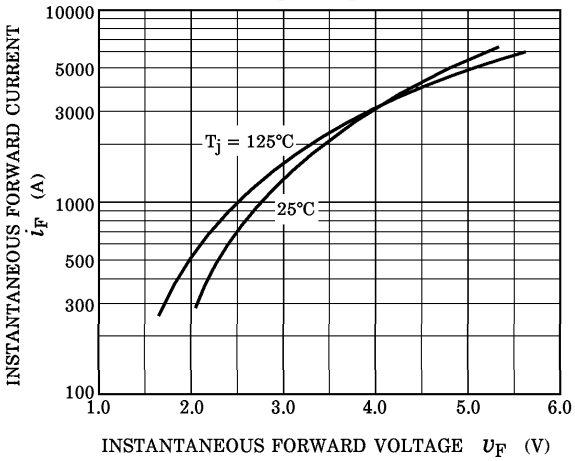
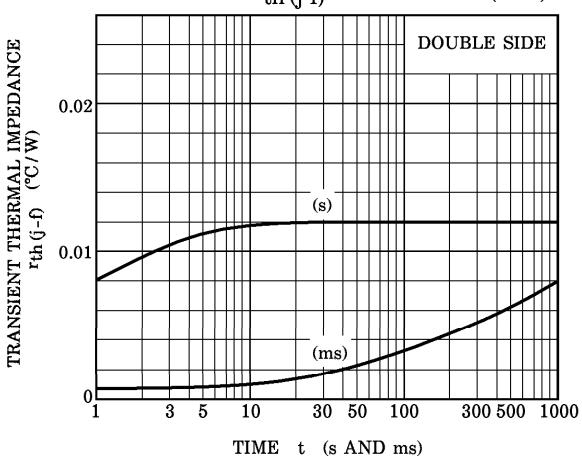
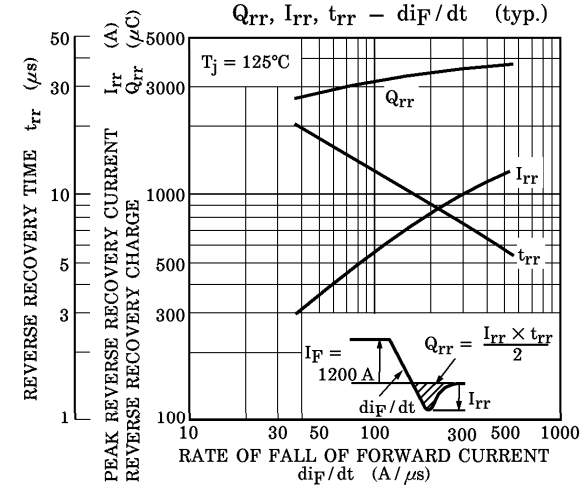
$i_F - v_F$ (max)



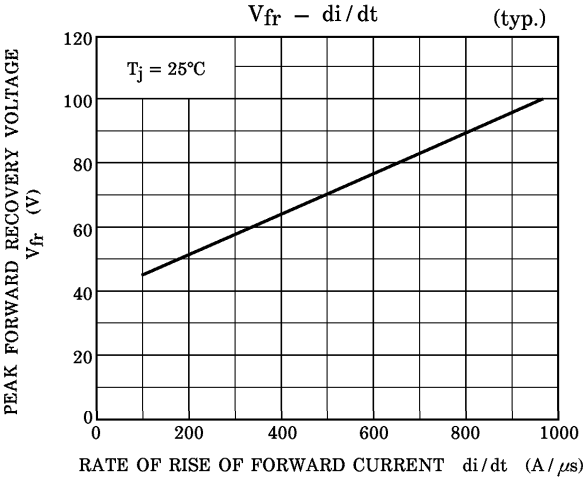
$r_{th\,(j\text{-}f)} - t$ (max)



Q_{rr}, I_{rr}, t_{rr} – di_F/dt (typ.)



V_{fr} – di/dt (typ.)



E_{rr} (BP) – I_F (typ.)