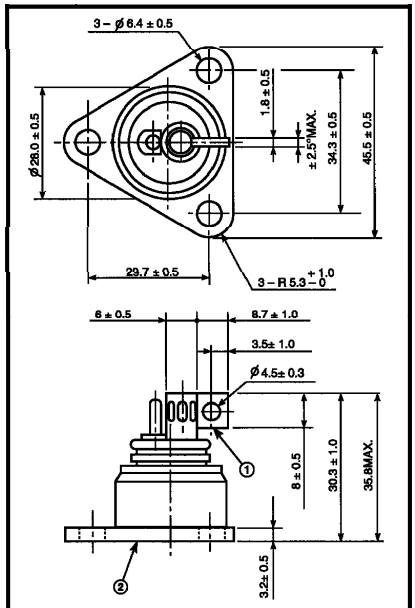
TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

50FXFG13, 50FXFH13

HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage : V_{RRM} = 3300V
- Average Forward Current : $I_{F(AV)}$ = 50A
- Reverse Recovery Time (T_j = 25°C) : t_{rr} = 2.0 μs



	50FXFG13	50FXFH13
1	ANODE	CATHODE
2	CATHODE	ANODE
JEDEC	—	
EIAJ	—	
TOSHIBA	3-29A1A	3-29A1B

Weight : 100g

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	3300	V
Non-Repetitive Peak Reverse Voltage (Non-Repetitive ≦ 5ms, T_j = 0~125°C)	V_{RSM}	3400	V
Average Forward Current	$I_{F(AV)}$	50	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	I_{FSM}	1000 (50Hz)	A
		1100 (60Hz)	
Junction Temperature Range	T_j	−40~125	°C
Storage Temperature Range	T_{stg}	−40~125	°C
Screw Torque	—	1.6	N·m

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	MAX.	UNIT
Repetitive Peak Reverse Current	I_{RRM}	V_{RRM} = 3300V, T_j = 125°C		—	50	mA
Peak Forward Voltage	V_{FM}	I_{FM} = 150A (T_j = 25°C)		—	1.7	V
Reverse Recovery Time	t_{rr}	I_F = 50A, di_F/dt = 100A/μs	T_j = 25°C	—	2.0	μs
			T_j = 125°C	—	2.5	
Thermal Resistance	$R_{th(j-c)}$	Junction to Fin		—	0.26	°C/W

Note : Contact thermal resistance $R_{th(c-f)}$ = 0.07°C/W (Applied silicone grease)

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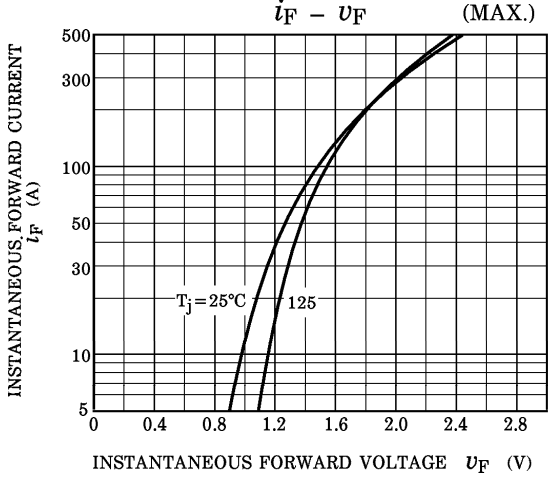
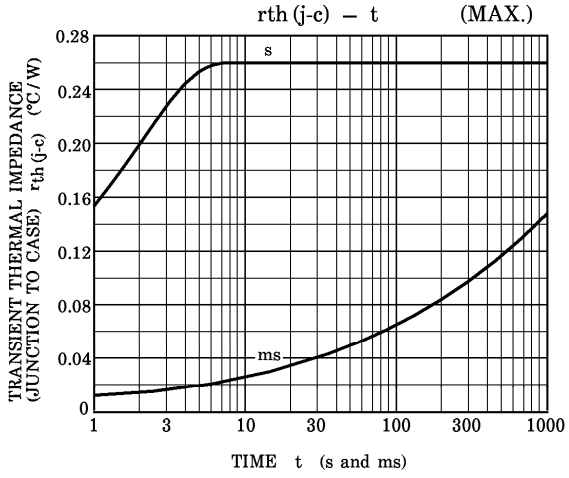
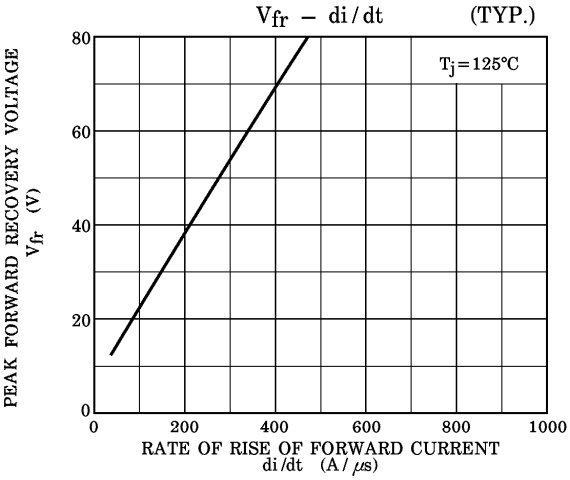
i_F – v_F (MAX.)



rth (j-c) – t (MAX.)



V_{fr} – di/dt (TYP.)



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