

# CONTROLLED AVALANCHE RECTIFIER

TOSHIBA (DISCRETE/OPTO)

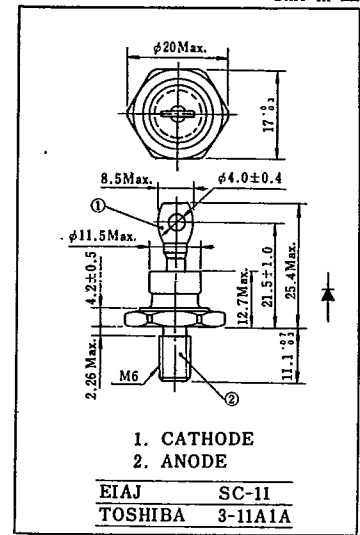
39 DE 9097250 0002249 J

Unit in mm

**25QF11** 1200V 25A

## MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	25LF11	V <sub>RRM</sub>	800	V
	25NF11		1000	
	25QF11		1200	
Peak Reverse Power Dissipation (t <sub>w</sub> =10μs) T <sub>a</sub> =25°C		P <sub>RSM</sub>	12	kW
Average Forward Current (T <sub>c</sub> =135°C)		I <sub>F(AV)</sub>	25	A
Peak One Cycle Surge Forward Current (Non-Repetitive)		I <sub>FSM</sub>	500(50Hz)	A
Junction Temperature		T <sub>j</sub>	-40~175	°C
Storage Temperature Range		T <sub>stg</sub>	-40~175	°C
Stud Torque			30	kgcm



AC32 is furnished as an accessory.

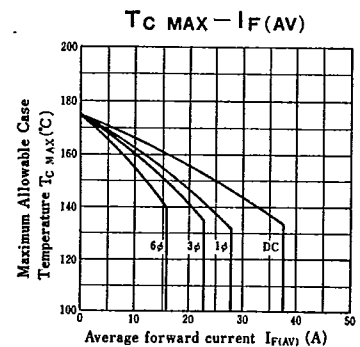
## ELECTRICAL CHARACTERISTICS

CHARACTERISTIC		SYMBOL	CONDITION	MIN.	MAX.	UNIT
Avalanche Break Breakdown Voltage	25LF11	V <sub>Z</sub>	I <sub>RRM</sub> =5mA, T <sub>a</sub> =25°C	1000	1300	V
	25NF11			1250	1550	
	25QF11			1500	1900	
Peak Forward Voltage		V <sub>FM</sub>	I <sub>FM</sub> =100A, T <sub>a</sub> =25°C	-	1.38	V
Repetitive Peak Reverse Current	25LF11	I <sub>RRM</sub>	T <sub>j</sub> =175°C V <sub>RRM</sub> =Rated	-	3.0	mA
	25NF11			-	2.5	
	25QF11			-	2.0	
Thermal Resistance (Note 1)		R <sub>th(j-c)</sub>	DC	-	1.0	°C/W

Notes: 1. Junction to Case.

2. At the series operation parallel capacitors(0.01μF) to the device are recommended to attach.

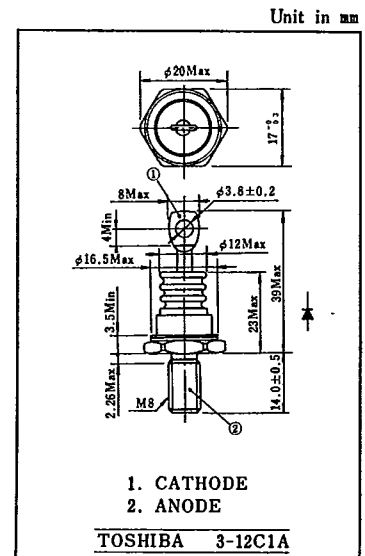
3. Consider the heat radiation including reverse power dissipation.



**25FXF12** 3000V 25A

## MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	3000	V
Peak Reverse Power Dissipation (t <sub>w</sub> =10μs) T <sub>a</sub> =25°C		P <sub>RSM</sub>	8	kW
Average Forward Current (T <sub>c</sub> =140°C)		I <sub>F(AV)</sub>	25	A
Peak One Cycle Surge Forward Current (Non-Repetitive)		I <sub>FSM</sub>	500(50Hz)	A
Junction Temperature		T <sub>j</sub>	-40~175	°C
Storage Temperature Range		T <sub>stg</sub>	-40~175	°C
Stud Torque			50	kgcm



AC56 is furnished as an accessory.

## 電気的特性

CHARACTERISTIC		SYMBOL	CONDITION	MIN.	MAX.	UNIT
Avalanche Break Breakdown Voltage		V <sub>Z</sub>	I <sub>RRM</sub> =5mA, T <sub>a</sub> =25°C	3300	4200	V
Peak Forward Voltage		V <sub>FM</sub>	I <sub>FM</sub> =80A, T <sub>a</sub> =25°C	-	1.70	V
Repetitive Peak Reverse Current		I <sub>RRM</sub>	V <sub>RRM</sub> =Rated, T <sub>j</sub> =175°C	-	7.0	mA
Thermal Resistance (Note 1)		R <sub>th(j-c)</sub>	DC	-	0.55	°C/W

Notes: 1. Junction to Case.

2. At the series operation parallel capacitors(0.01μF) to the device are recommended to attach.

3. Consider the heat radiation including reverse power dissipation.

