

CDBJFSC101200-G

Reverse Voltage: 1200 V

Forward Current: 10 A

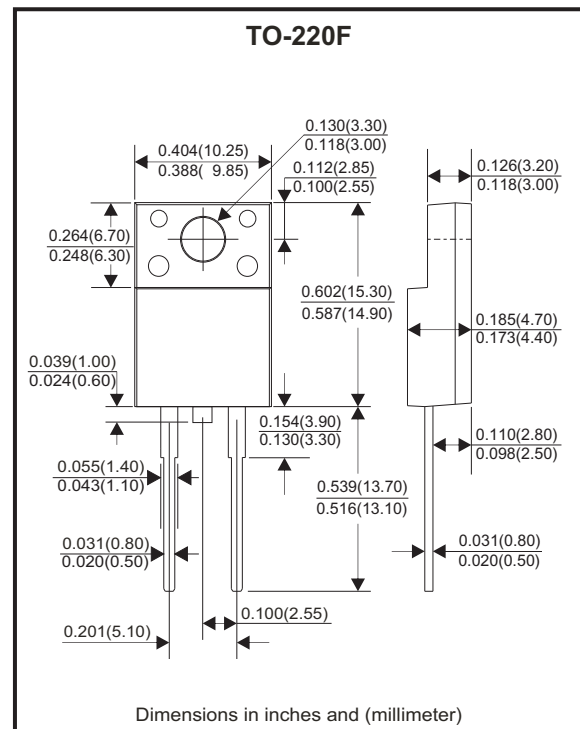
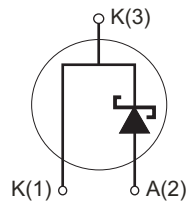
RoHS Device



Features

- Rated to 1200V at 10 Amps
- Short recovery time.
- High speed switching possible.
- High frequency operation.
- High temperature operation.
- Temperature independent switching behaviour.
- Positive temperature coefficient on VF.

Circuit diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage		V _{RRM}	1200	V
Surge peak reverse voltage		V _{RSM}	1200	V
DC blocking voltage		V _{DC}	1200	V
Continuous forward current	T _C = 25°C	I _F	15	A
	T _C = 135°C		7	
	T _C = 150°C		5	
Repetitive peak forward surge current	T _C = 25°C, t _p = 10ms Half sine wave, D = 0.3	I _{FRM}	60	A
Non-repetitive peak forward surge current	T _C = 25°C, t _p = 10ms Half sine wave	I _{FSM}	140	A
Power dissipation	T _C = 25°C	P _{TOT}	51	W
	T _C = 110°C		22.1	
Typical thermal resistance	Junction to case	R _{θJC}	2.94	°C/W
Operating junction temperature range		T _J	-55 ~ +175	°C
Storage temperature range		T _{STG}	-55 ~ +175	°C

Company reserves the right to improve product design, functions and reliability without notice.

REV:

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Typ	Max	Unit
Forward voltage	IF = 10 A , TJ = 25°C	VF	1.63	1.7	V
	IF = 10 A , TJ = 175°C		2.55	3	
Reverse current	VR = 1200V , TJ = 25°C	IR	50	100	μA
	VR = 1200V , TJ = 175°C		100	200	
Total capacitive charge	VR = 800V , TJ = 150°C Qc = ∫ ₀ ^{VR} C(V) dv	Qc	69	-	nC
Total capacitance	VR = 0V , TJ = 25°C , f = 1 MHz	C	770	790	pF
	VR = 400V , TJ = 25°C , f = 1 MHz		52	54	
	VR = 800V , TJ = 25°C , f = 1 MHz		50	51	

Typical Characteristics (CDBJFSC101200-G)

Fig.1 - Forward Characteristics

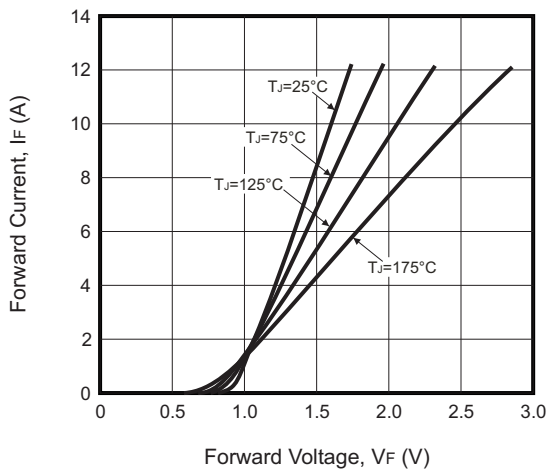


Fig.2 - Reverse Characteristics

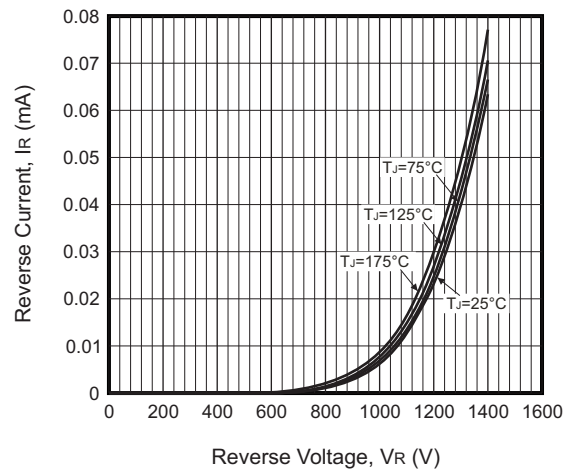


Fig.3 - Current Derating

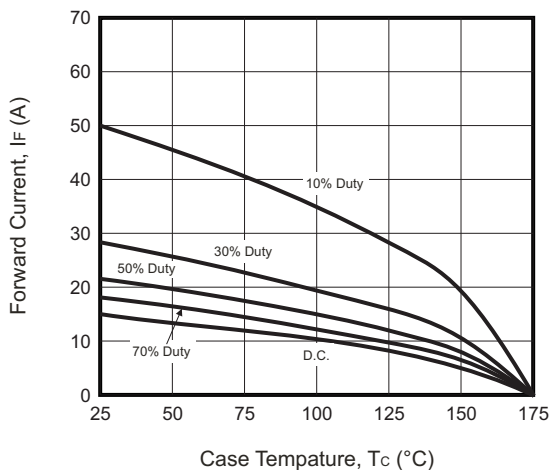
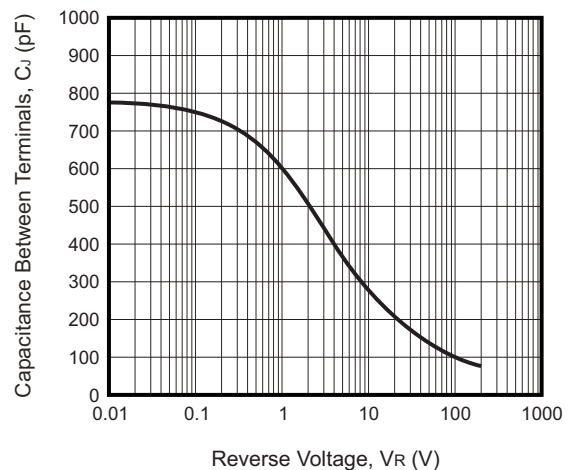


Fig.4 - Capacitance vs. Reverse Voltage



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