

CDBJFSC101200-G

Reverse Voltage: 1200 V
Forward Current: 10 A
RoHS Device

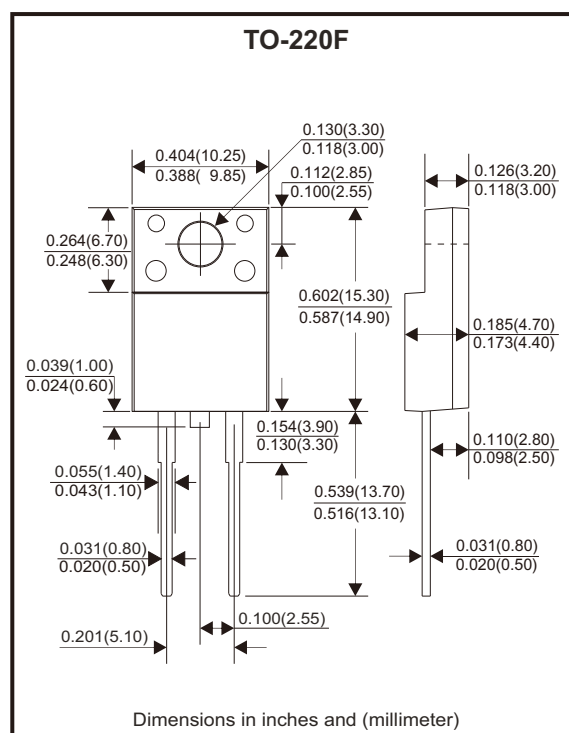
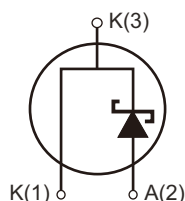

Features

- 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 .

Mechanical data

- Case: TO-220F, molded plastic.

Circuit Diagram



Maximum Rating (at $T_A=25^{\circ}\text{C}$ 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
Typical continuous forward current	$T_C = 100^{\circ}\text{C}$	I_F	10	A
Repetitive peak forward surge current	$T_C = 25^{\circ}\text{C}$, $t_p = 10\text{ms}$ Half sine wave, $D = 0.3$	I_{FRM}	50	A
Non-repetitive peak forward surge current	$T_C = 25^{\circ}\text{C}$, $t_p = 10\text{ms}$ Half sine wave	I_{FSM}	100	A
Power dissipation	$T_C = 25^{\circ}\text{C}$	P_{TOT}	51	W
	$T_C = 110^{\circ}\text{C}$		22.1	
Typical thermal resistance	Junction to case	$R_{\theta JC}$	2.94	$^{\circ}\text{C/W}$
Operating junction temperature range		T_J	-55 ~ +175	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 ~ +175	$^{\circ}\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Typ	Max	Unit
Forward voltage	$I_F = 10\text{ A}$, $T_J = 25^\circ\text{C}$	V_F	1.63	1.7	V
	$I_F = 10\text{ A}$, $T_J = 175^\circ\text{C}$		2.55		
Reverse current	$V_R = 1200\text{ V}$, $T_J = 25^\circ\text{C}$	I_R	50	100	μA
	$V_R = 1200\text{ V}$, $T_J = 175^\circ\text{C}$		100		
Total capacitive charge	$V_R = 800\text{ V}$, $T_J = 150^\circ\text{C}$ $Q_C = \int_0^{V_R} C(V) dv$	Q_C	69	-	nC
Total capacitance	$V_R = 0\text{ V}$, $T_J = 25^\circ\text{C}$, $f = 1\text{ MHz}$	C	780		pF

Typical Characteristics (CDBJFSC101200-G)

Fig.1 - Forward Characteristics

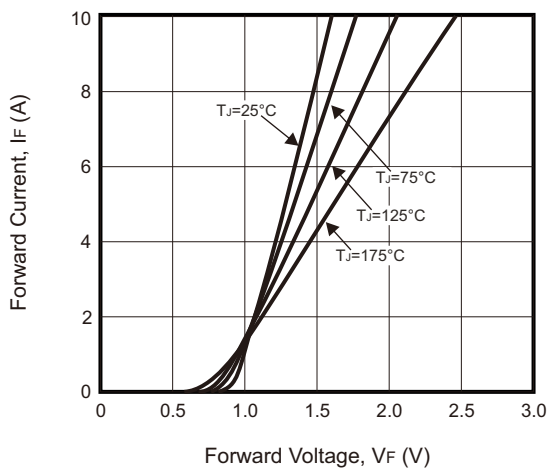


Fig.2 - Reverse Characteristics

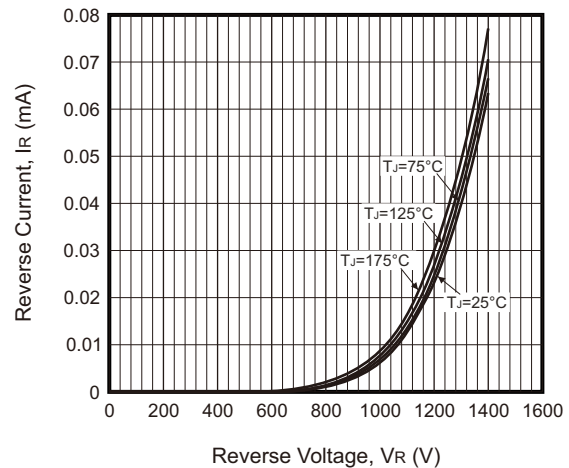


Fig.3 - Current Derating

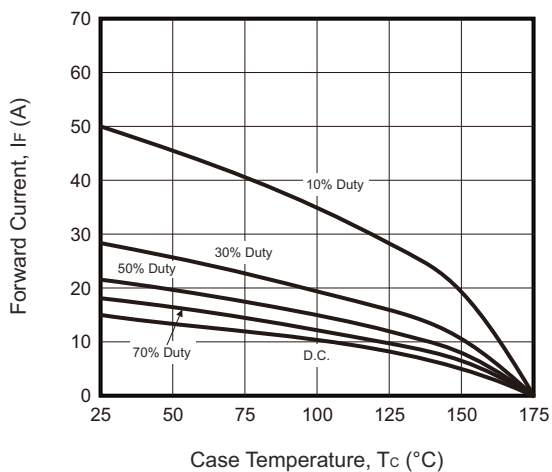
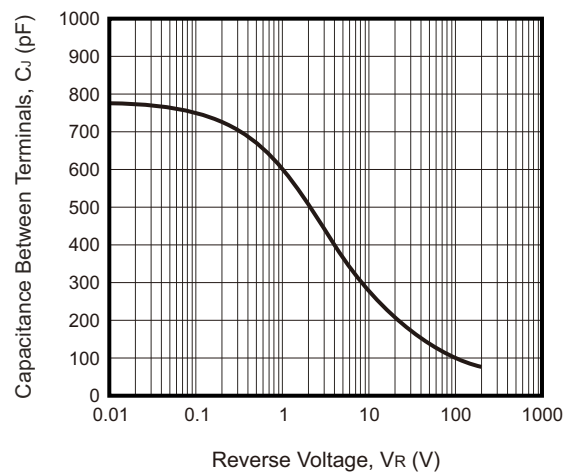


Fig.4 - Capacitance vs. Reverse Voltage

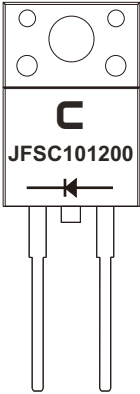


Company reserves the right to improve product design, functions and reliability without notice.

REV:B

Marking Code

Part Number	Marking Code	
CDBJFSC101200-G	JFSC101200	G3S12010H



 = Comchip Logo

xxxxxx = Control code

Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-220F	50	1,000