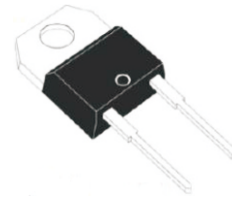


CDBJCSC201200-G

Reverse Voltage: 1200V

Forward Current: 20A

RoHS Device



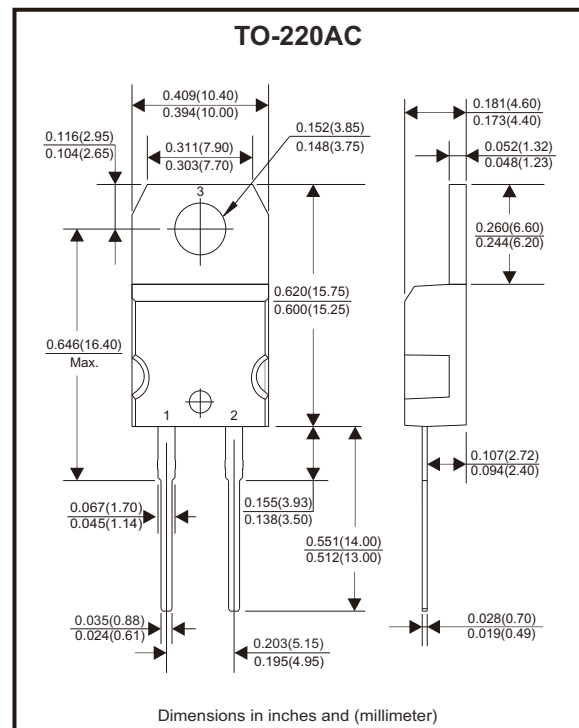
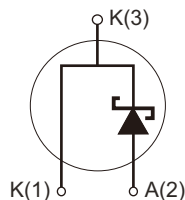
Features

- Rated to 1200 at 20 Amps
- Zero reverse recovery current.
- Zero forward recovery voltage.
- Temperature independent switching behaviour.
- High temperature operation.
- High frequency operation.

Mechanical data

- Case: TO-220AC, molded plastic.

Circuit diagram



Maximum Ratings (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
Continuous forward current	$T_C = 135^\circ\text{C}$	I_F	20	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}	100	A
Non-repetitive peak forward surge current	$T_C = 25^\circ\text{C}$, $t_p = 10\text{ms}$ Half sine wave (Per leg)	I_{FSM}	250	A
Power dissipation	$T_C = 25^\circ\text{C}$	P_{TOT}	192.3	W
	$T_C = 110^\circ\text{C}$		83.3	
Typical thermal resistance	Junction to case	$R_{\theta JC}$	2.16	$^\circ\text{C/W}$
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	Min.	Typ.	Max.	Unit
Forward voltage	$I_F = 20\text{A}$, $T_J = 25^\circ\text{C}$	V_F		1.68	1.8	V
	$I_F = 20\text{A}$, $T_J = 175^\circ\text{C}$			2.55		
Reverse current	$V_R = 1200\text{V}$, $T_J = 25^\circ\text{C}$	I_R		20	100	μA
	$V_R = 1200\text{V}$, $T_J = 175^\circ\text{C}$			30		
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		110		nC
Total capacitance	$V_R = 0\text{V}$, $T_J = 25^\circ\text{C}$, $f = 1\text{MHz}$	C		1500	1580	pF

Rating and Characteristics Curves (CDBJCSC201200-G)

Fig.1 - Forward IV Characteristics as a Function of T_J :

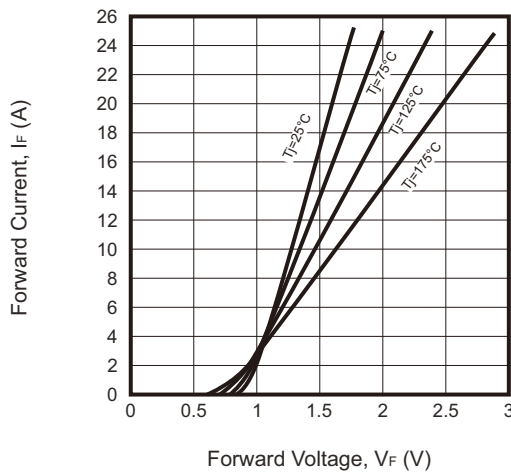


Fig.2 - Reverse IV Characteristics as a Function of T_J :

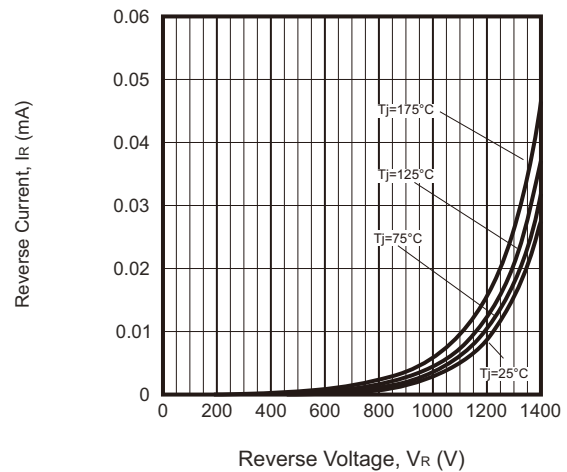


Fig.3 - Current Derating

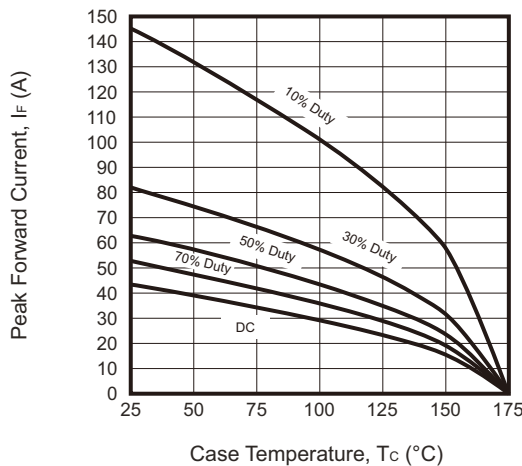
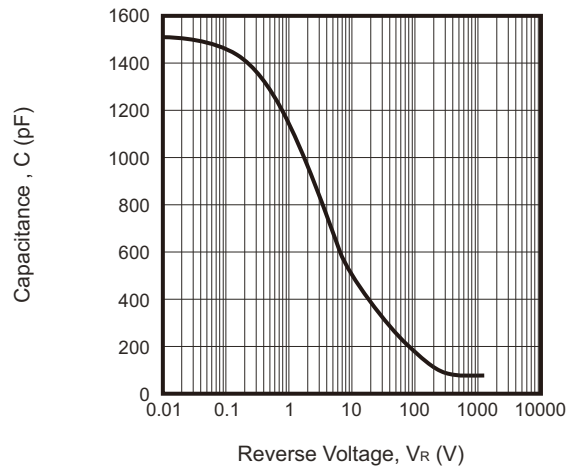
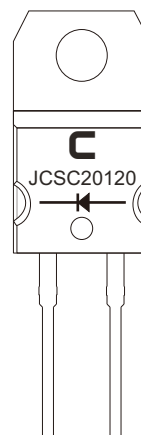


Fig.4 - Capacitance VS. Reverse Voltage



Marking Code

Part Number	Marking Code
CDBJCSC201200-G	JCSC20120



C = Comchip logo

Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-220AC	50	1000