

FEATURES

- V_{CEsat} with positive temperature coefficient
- Low V_{cesat}
- Low switching losses
- Low inductance case
- Isolated copper baseplate using DBC technology

APPLICATION

- Welding Machine
- UPS

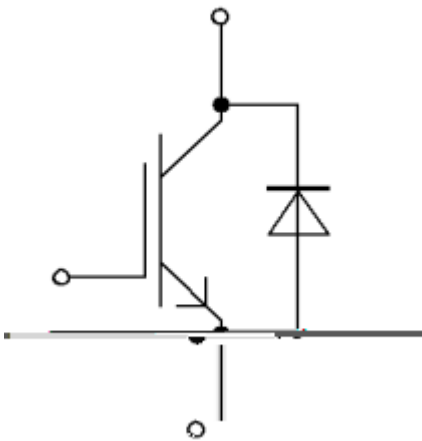
Preliminary Data

$V_{CES} = 650V$

$I_C \text{ nom} = 200A / I_{CRM} = 200A$



Equivalent Circuit Schematic



IGBT, Inverter Maximum Rated Values

bsbn u sl	po e upot!	T n prh	bm t!	Vo ut!
ECT R EMITIER V TAGE	4VJ	6 3		6
NTIN S C ECT RC RRENT	4C 4VJ MA)		!
2EPETITIVE PEAK C ECT RC RRENT	T ₆ MS) 2-		!
4 TA P WERDISSIPATI N	4 4VJ MA	0 _{T T}		7
ATE EMITIER PEAK V TAGE		6 3		6

Characteristic Values

bsbn u sl	po e upot!	T n prh	bm t!			Vo ut!
			o!	U !	by!	
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ATE THRESH D V TAGE) M! 6 6 4VJ	6 TH				6
ATE CHARGE	6 6	1				
)NP T CAPACITANCE	F - (4VJ 6 6	ES				N
2EVERSE TRANSFER CAPACITANCE	6 6	RES				N
ECT R EMITIER C T FFC RRENT	6 6 6 4VJ) 3				M!
ATE EMITIER EAKAGE C RRENT	6 6 6 4VJ) 3				N
4 RN N DE A TIME IND CTIVE AD) ! 6 6 6 6 2 I DT N ! S V DT FF ! S 4VJ	T _N				S
2ISE TIME IND CTIVE AD		T _R				S
4 RN FF DE A TIME IND CTIVE AD		T _{FF}				S
A TIME IND CTIVE AD		T _F				S
4 RN N ENERG SS PERP SE		N				M
4 RN FF ENERG SS PERP SE		FF				M
4HERMA RESISTANCE J NCTI N T CASE		PER) "4	2TH			
4HERMA RESISTANCE CASE T HEATSINK	PER) "4 OASE 7 M GREASE 7 M	2TH (7
4EMPERAT RE NDER SWITCHING C NDITI NS		4VJ P				

Diode, Inverter

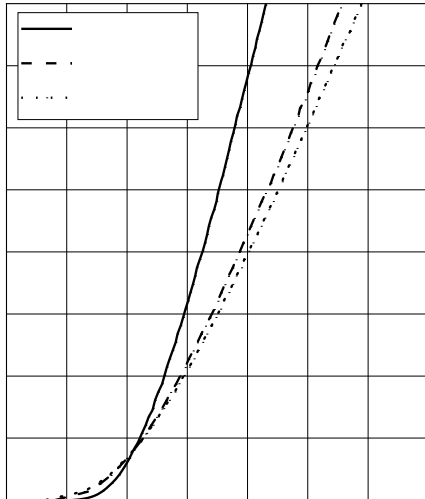
Maximum Rated Values

Parameter	Symbol	Unit	Value	Notes
REPEATED PEAK REVERSE VOLTAGE	V_{RRM}	V	622	
AVG. FORWARD CURRENT	$I_{T(AV)}$	A	6	
REPEATED PEAK FORWARD CURRENT	I_{TSM}	A	62	

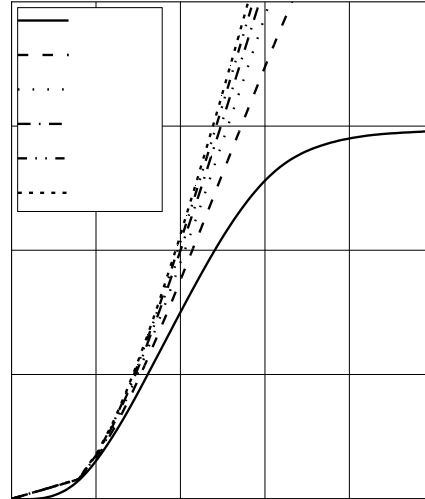
Characteristic Values

Parameter	Symbol	Unit	Value	Notes
Forward Voltage	V_{F}	V	1.0	at $I_T = 10A$
Reverse Leakage Current	I_{R}	μA	10	at $V_R = 600V$
Thermal Resistance	$R_{\theta(j-c)}$	$^{\circ}C/W$	0.1	

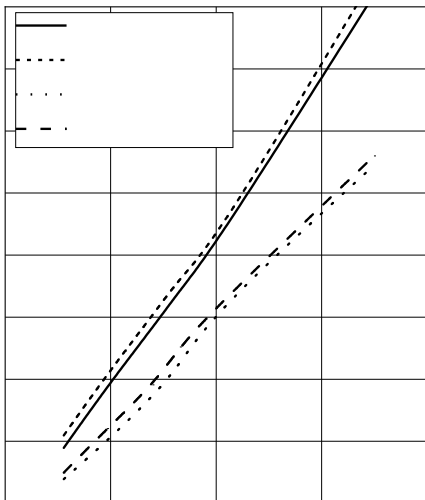
Output characteristic IGBT, Inverter (typical)



Output characteristic IGBT, Inverter (typical)



Switching losses IGBT, Inverter (typical)



Forward characteristic of Diode, Inverter (typical)

