

Source-Drain Diode

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
I_S	$V_{GS} = 0 \text{ V}$			44 A
V_{SD}	$I_F = 44 \text{ A}; V_{GS} = 0 \text{ V}$	0.9	1.2	V
t_{rr}	$I_F = 44 \text{ A}; -di_F/dt = 100 \text{ A}/\mu\text{s}; V_R = 400 \text{ V}$	600		ns
Q_{RM}		17		μC
I_{RM}		60		A

Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}	operating	-55...+150	$^{\circ}\text{C}$
T_{stg}		-55...+150	$^{\circ}\text{C}$
M_d	mounting torque	0.8 ... 1.2	Nm

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
R_{thCH}	with heatsink compound	0.25		K/W
Weight		6		g

TO-247 AD Outline

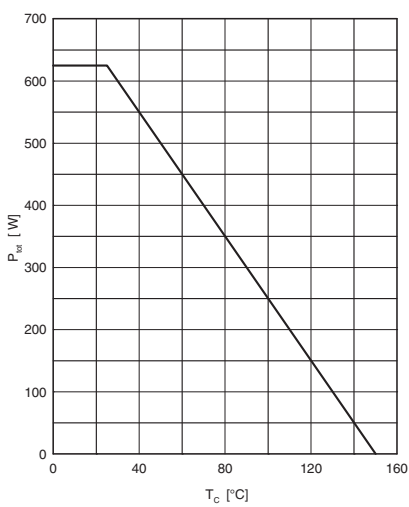
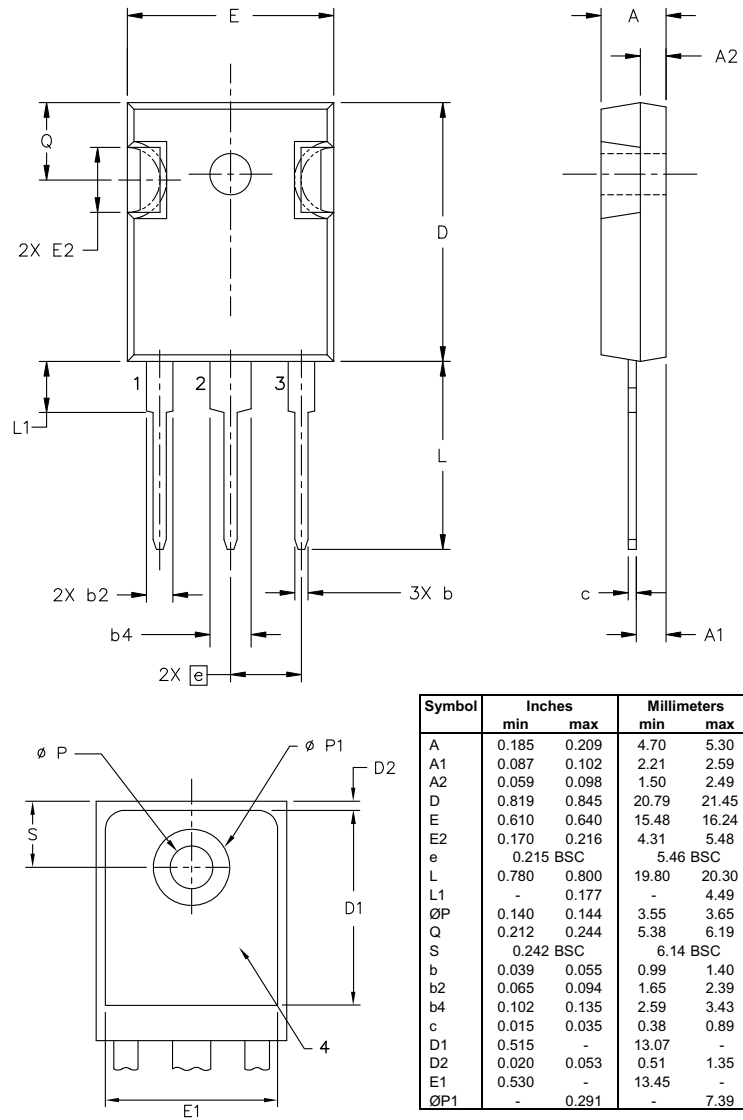


Fig. 1 Power dissipation

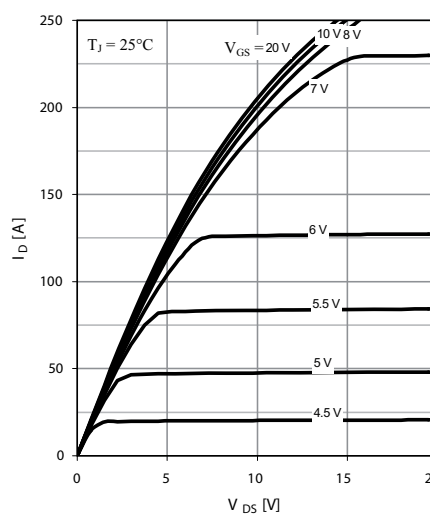


Fig. 2 Typ. output characteristics

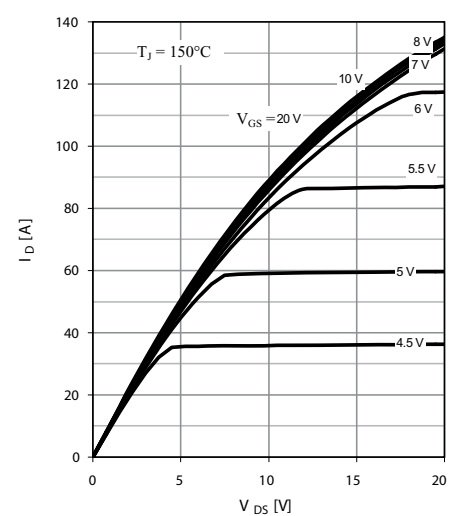


Fig. 3 Typ. output characteristics

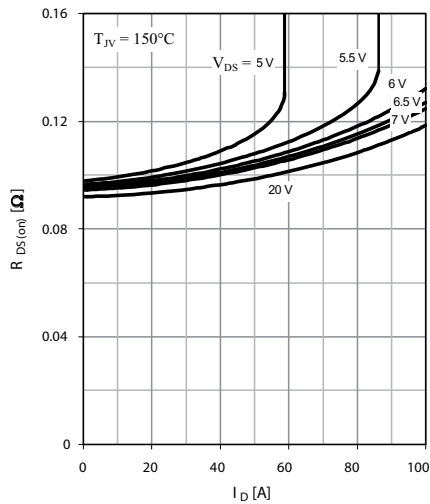


Fig. 4 Typ. drain-source on-state resistance characteristics of IGBT

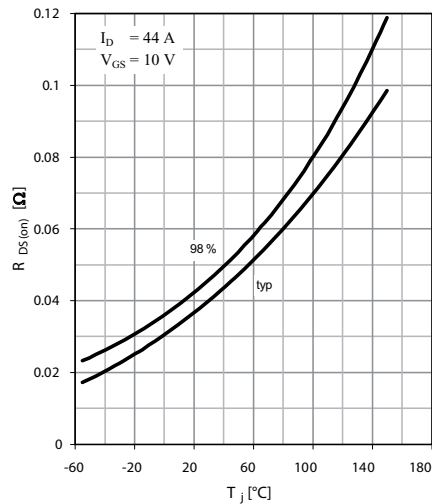


Fig. 5 Drain-source on-state resistance

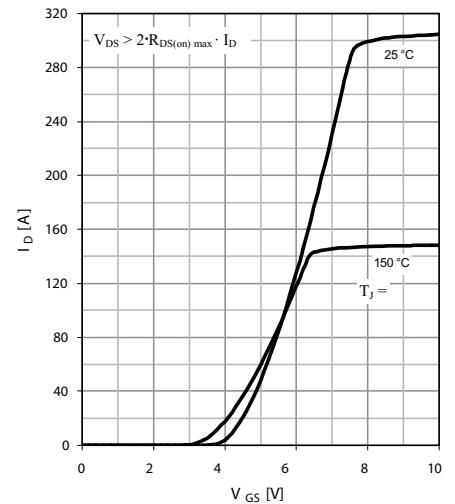


Fig. 6 Typ. transfer characteristics

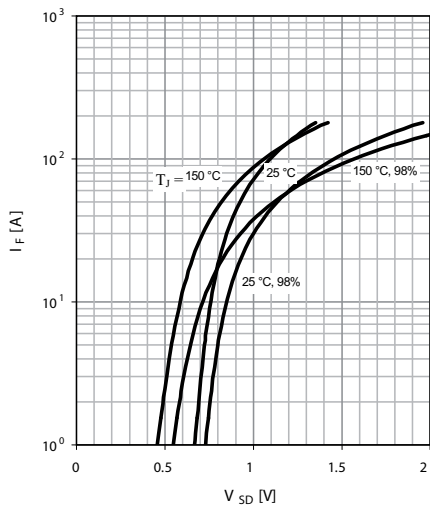


Fig. 7 Forward characteristic of reverse diode

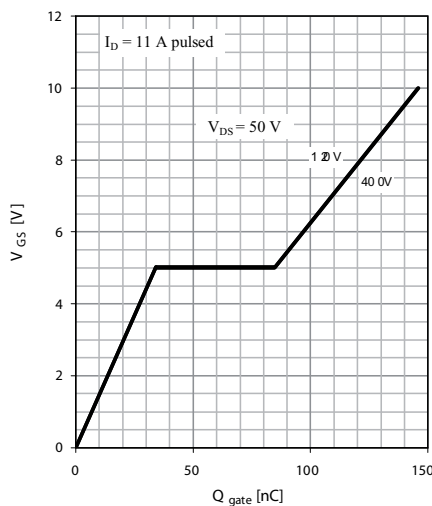


Fig. 8 Typ. gate charge

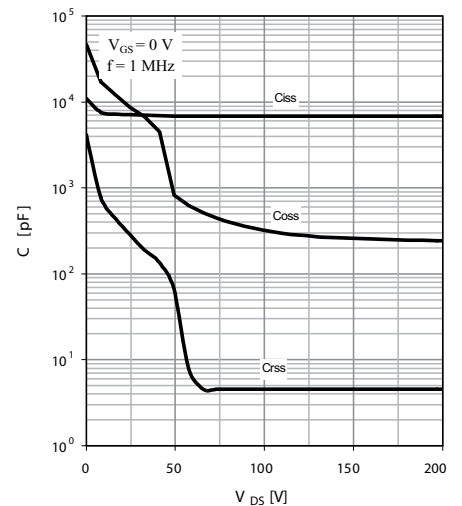


Fig. 9 Typ. capacitances

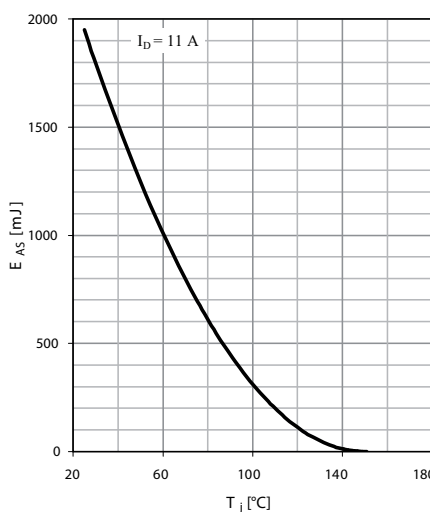


Fig. 10 Avalanche energy

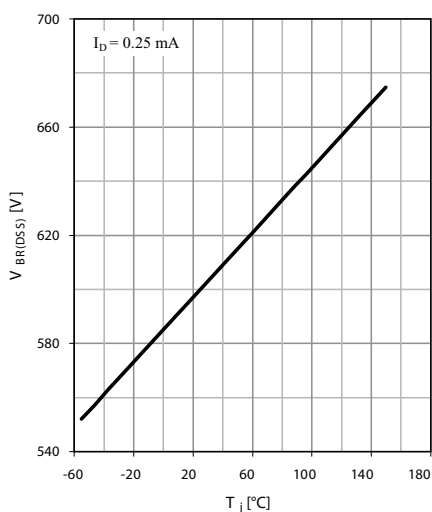


Fig. 11 Drain-source breakdown voltage

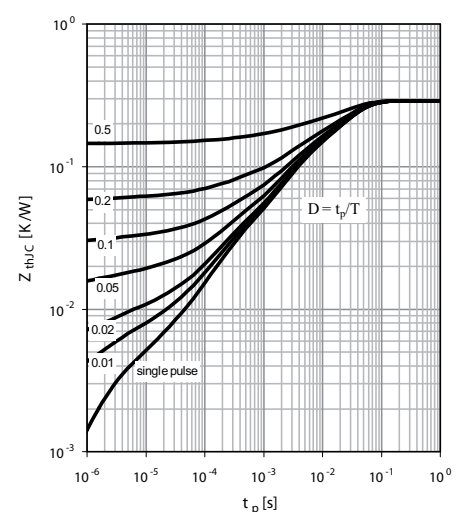


Fig. 12 Max. transient thermal impedance

IXYS reserves the right to change limits, test conditions and dimensions.

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