

**Key 4**

Symbol	Parameter	Values		Unit
		Typ.	Max.	
CES	Collector-emitter voltage	650		V
GES	Gate-emitter voltage	±20		V
C	Continuous collector current ( $T_c=25^\circ\text{C}$ )	12		A
	Continuous collector current ( $T_c=100^\circ\text{C}$ )	6		A
CM	Pulsed collector current, $I_p$ limited by $v_{jmax}$	24		A
F	Diode continuous forward current ( $T_c=100^\circ\text{C}$ )	6		A
FM	Diode maximum current, $I_p$ limited by $v_{jmax}$	24		A
sc	Short circuit withstand time	10		µs
tot	Power dissipation ( $T_c=25^\circ\text{C}$ )	136		W
	Power dissipation ( $T_c=100^\circ\text{C}$ )	68		W
vj	Operating junction temperature range	-40 to +175		
stg	Storage temperature range	-55 to +150		

Symbol	Parameter	Values		Unit
		Typ.	Max.	
th(j-c)	Thermal			



Symbol	Parameter	Test condition	Values			Unit
			Min.	Typ.	Max.	
$V_{CES}$	Collector-emitter breakdown voltage	$V_{GE}=0V, I_C=250\mu A$	650			V



Symbol	Parameter	Test condition	Values			Unit
			Min.	Typ.	Max.	
d(on)	Turn-on delay time		-	10	-	ns
t <sub>r</sub>	Rise time	CC=400V GE=0/15V c=6A G=10 Inductive load	-	8		



**Symbol**

**Parameter**



## Typical performance characteristics

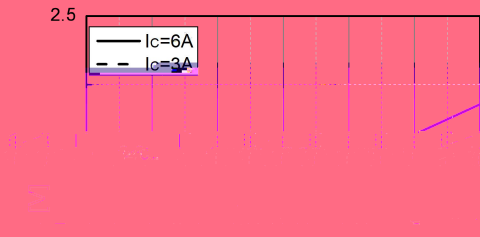


Fig 7. Typical  $C_{E_{sat}}$  as a function of  $v_j$

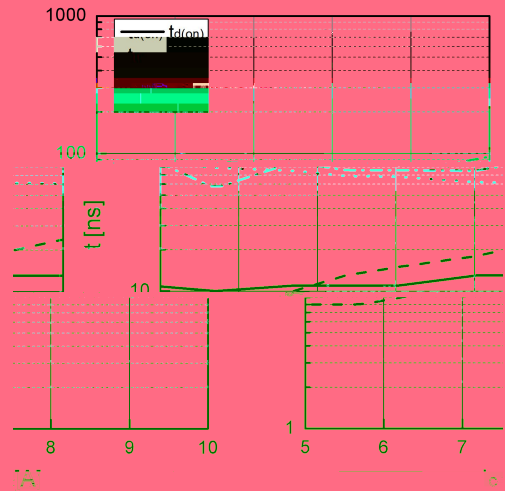


Fig 8. Typical switching time as a function of  $I_c$

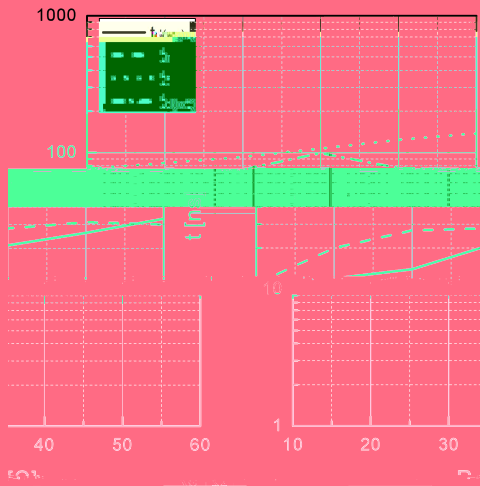


Fig 9. Typical switching times as a function of  $G$

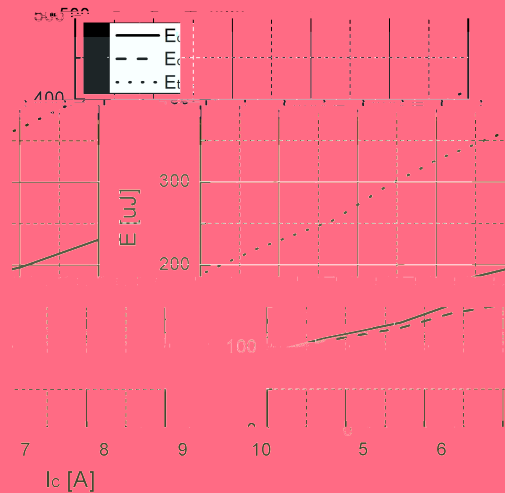


Fig 10. Typical switching energy losses as a function of  $I_c$

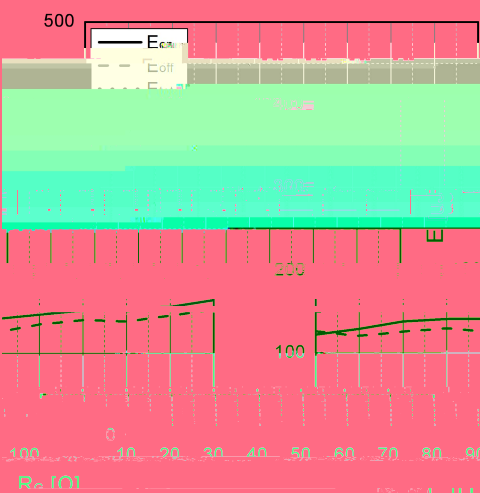


Fig 11. Typical switching energy losses as a function of  $G$

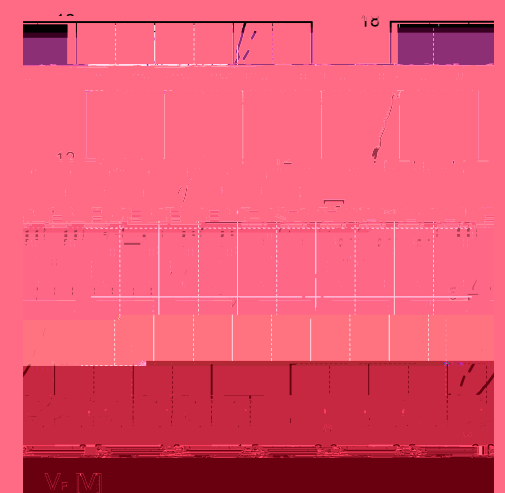


Fig 12. Typical  $F$  as a function of  $F$

## Typical performance characteristics

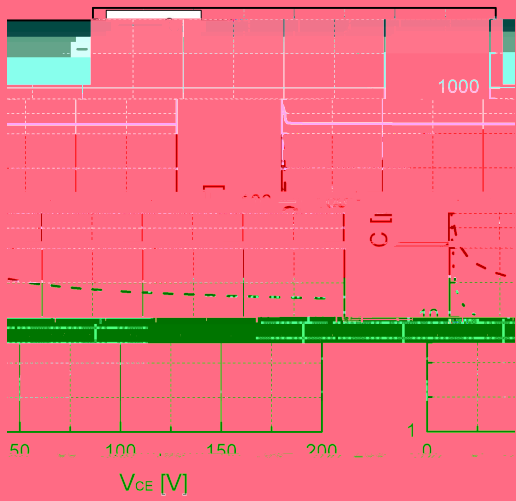


Fig 13. Typical capacitance as a function of  $V_{CE}$   
( $f=1\text{MHz}$ ,  $V_{GE}=0\text{V}$ )

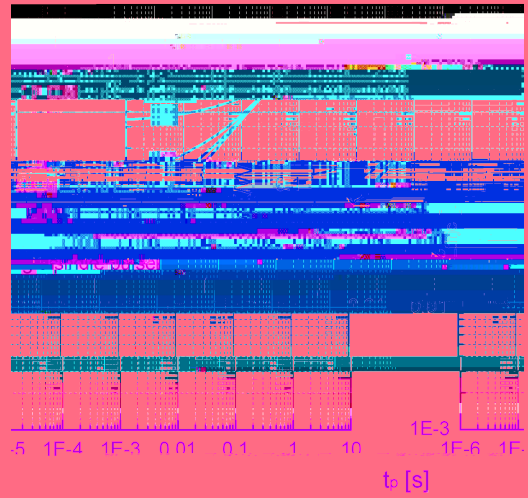


Fig 14. Transient thermal impedance of IGBT



Dimensions

Ref.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90	-	10.20	0.390	-	0.402
B	14.70	-	15.80	0.579	-	0.622
C	9.4	-	9.6	0.37	-	0.378
D	-	2.54	-	-	0.100	-
E	1.20	-	1.40	0.047	-	0.055
F	0.75	-	0.85	0.029	-	0.033
G	-	-	1.75	-	-	0.069
H	4.40	-	4.70	-	-	-



Date	Revision	Changes
2024-06-25	Rev 1.0	Release of the datasheet
2025-02-06	Rev 1.1	Update
2025-04-08	Rev 1.2	Character Update

### Disclaimer

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