

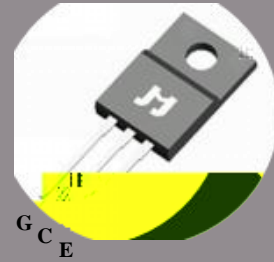
650V 30A Trench and Field Stop IGBT

JJT30N65SS

Key performance:

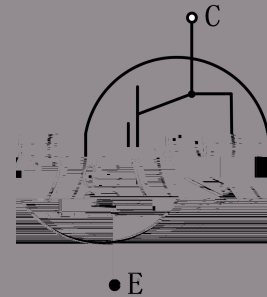
- $V_{CE} = 650V$
- $I_C = 30A @ V_{CE} = 100V$
- $V_{CE(sat)} = 1.7V$

TO-220F



Features:

- High ruggedness performance.
- 10 μ s short circuit capability.
- Positive $V_{CE(sat)}$ temperature coefficient.
- High efficiency for motor control.
- Excellent current sharing in parallel operation.
- RoHS compliant.



Applications:

- Home appliances
- Motor drives
- General inverter

Package parameters

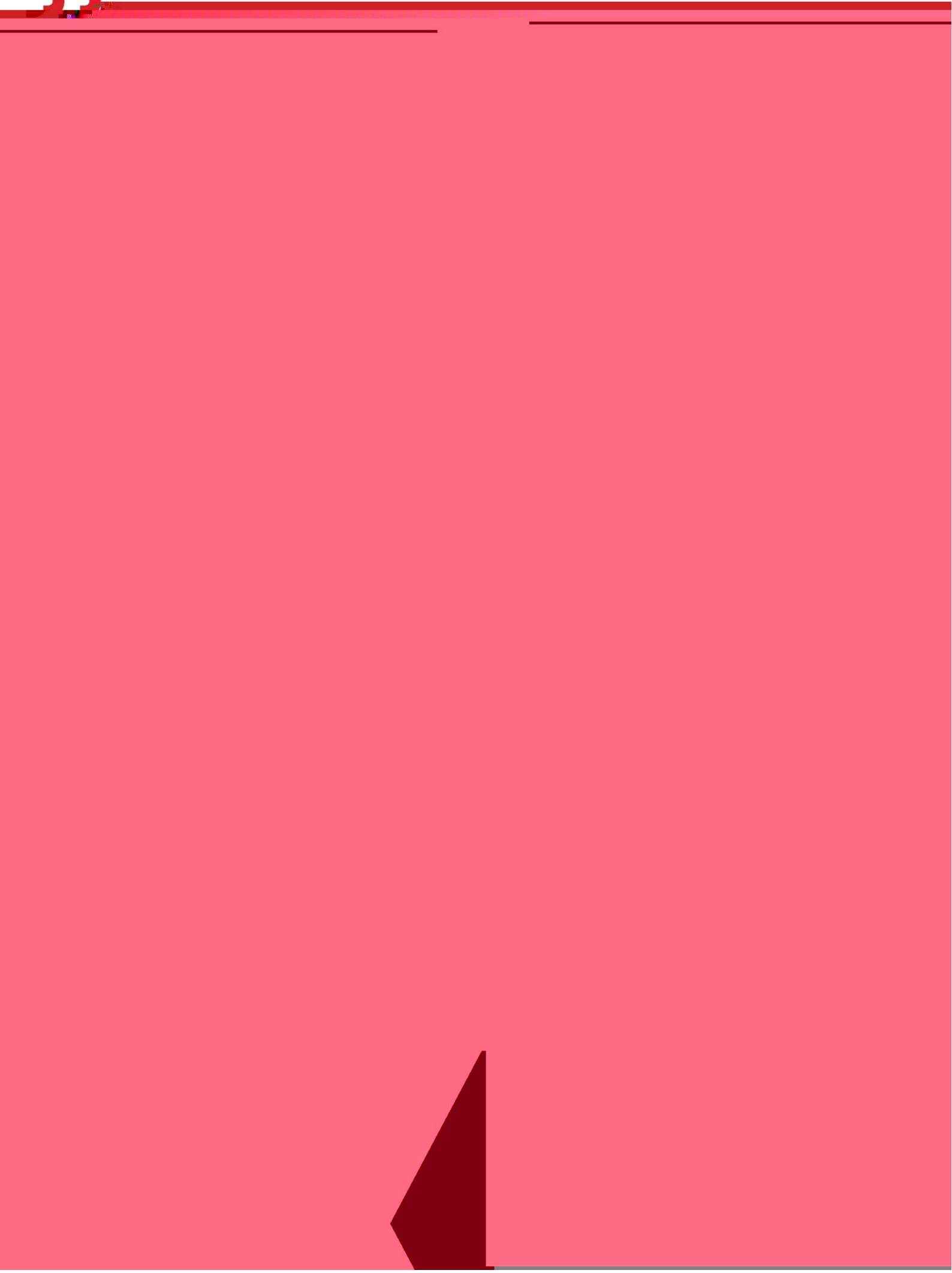
Type	Marking	Package	Packaging method
JJT30N65SS	T3065SS	TO-220F	Tube





**Electrical characteristics of Diode** ($v_j=25$ unless otherwise specified)

Symbol	Parameter	Test condition	Values			Unit
			Min.	Typ.	Max.	
F	Diode forward voltage	$I_F=30A$	-	1.7	-	V
		$I_F=30A, v_j=175$	-	1.4	-	V
t_r	Diode reverse recovery time	$V_R=400V$ $I_F=30A$ $d I_F/d t = -550A/\mu s$	-	105	-	ns
I_{rrm}	Diode peak reverse recovery current		-	16	-	A
Q_{rr}	Diode reverse recovery charge		-	876	-	nC
t_r	Diode reverse recovery time	$V_R=400V$ $I_F=30A$ $d I_F/d t = -550A/\mu s$ $v_j=175$	-	171	-	ns
I_{rrm}	Diode peak reverse recovery current		-	26	-	A
Q_{rr}	Diode reverse recovery charge		-	2650	-	nC



Typical performance characteristics

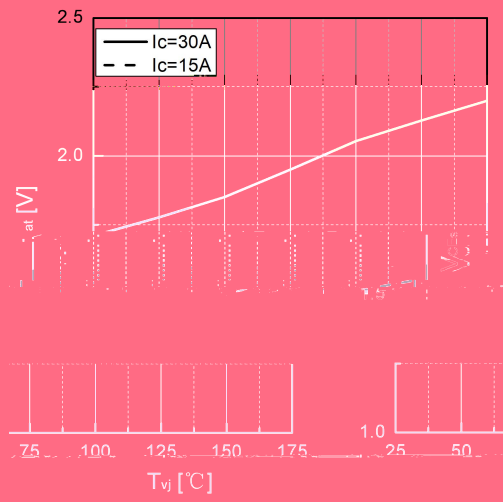
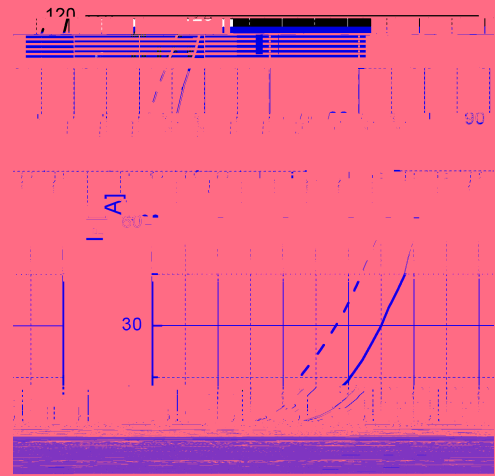


Fig 7. Typical $C_{E_{sat}}$ as a function of T_{vj}



Typical performance characteristics

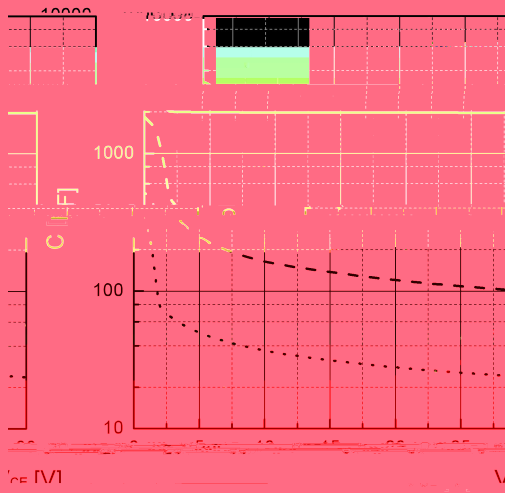
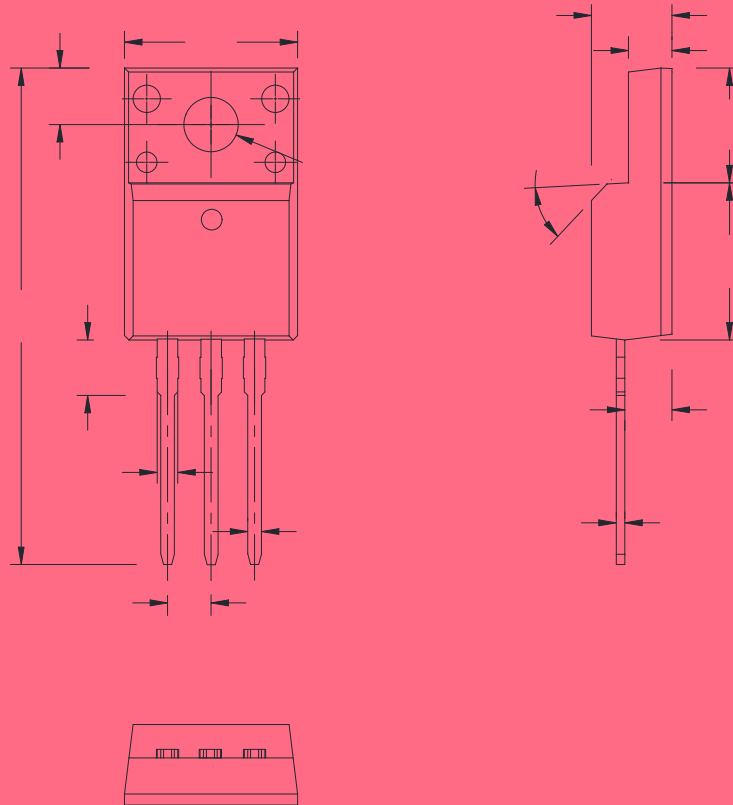


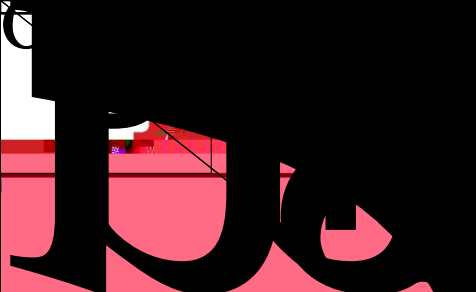
Fig 13. Typical capacitance as a function of V_{CE}
 (f=1Mhz, $V_{GE}=0V$)

Package dimension

TO-220F



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50	-	4.90	0.177	-	0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47	-	0.66	0.019	-	0.026
C2	2.45	-	2.75	0.096	-	0.108
C3	2.60	-	3.00	0.102	-	0.118
D	8.80	-	9.30	0.346	-	0.366
E	9.80	-	10.40	0.386	-	0.410
F	6.40	-	6.80	0.252	-	0.268
G	2.40	-	2.70	0.094	-	0.106
H	28.0	-	29.80	1.102	-	1.173
L1	-	3.63	-	-	0.143	-
L2	1.14	-	1.70	0.045	-	0.067
L3	-	3.30	-	-	0.130	-
V1	-	45°	-	-	45°	-



Date	Revision
2023-12-27	Rev 1.0
2025-03-09	Rev 1.1

Disclaimer

PLEASE DO NOT
modify