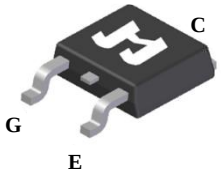
Key performance:

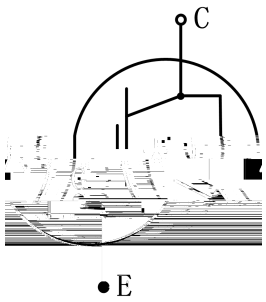
- $_{CE}$=650V
- $_{C}$=10A@ $_{C}$=100
- $_{CE(sat)}$=1.8 V

TO-252



Features:

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



Applications:

- Home appliances
- Motor drives

Package parameters

Type	Marking	Package	Packaging method
JJT10N65ST	T1065ST	TO-252	Tape and reel

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Symbol	Parameter	Values	Unit
V_{CES}	Collector-emitter voltage	650	V
V_{GES}	Gate-emitter voltage	±20	V
I_C	Continuous collector current ($_C$=25)	20	A
	Continuous collector current ($_C$=100)	10	A
I_{CM}	Pulsed collector current, $_p$ limit e		

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Symbol	Parameter	Test condition	Values			Unit
			Min.	Typ.	Max.	
$_{CES}$	Collector-emitter breakdown voltage	$_{GE}$=0V, $_{C}$=250μA	650	-	-	V
$_{CES}$	Collector-emitter leakage current	$_{CE}$=650V, $_{GE}$=0V	-	-	50	μA

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Switching characteristics

Symbol	Parameter	Test condition	Values			Unit
			Min.	Typ.	Max.	
d(on)	Turn-on delay time	$_{CC}$=400V $_{GE}$=0/15V $_{C}$=10A $_{G}$=10 Inductive load	-	12	-	ns
r	Rise time		-	11	-	ns
d(off)	Turn-off delay time		-	74	-	ns
f	Fall time		-	71	-	ns
on	Turn-on energy		-	0.18	-	mJ
off	Turn-off energy		-	0.17	-	mJ
ts	Total switching energy		-	0.35	-	mJ
d(on)	Turn-on delay time	$_{CC}$=400V $_{GE}$=0/15V $_{C}$=10A $_{G}$=10 Inductive load $_{vj}$=175	-	11	-	ns
r	Rise time		-	13	-	ns
d(off)	Turn-off delay time		-	114	-	ns
f	Fall time		-	87	-	ns
on	Turn-on energy		-	0.22	-	mJ
off	Turn-off energy		-	0.27	-	mJ
ts	Total switching energy		-	0.49	-	mJ

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Symbol	Parameter	Test condition	Values			Unit
			Min.	Typ.	Max.	
V_F	Diode forward voltage	I_F=10A	-	1.4	-	V
		I_F=10A, T_{vj}=175	-	1.2	-	V
t_{rr}	Diode reverse recovery time	V_R=400V	-	57	-	ns
I_{rrm}	Diode peak reverse recovery current	I_F=10A	-	12	-	A
Q_{rr}	Diode reverse recovery charge	dI_F/dt =-750A/μs	-	411	-	nC

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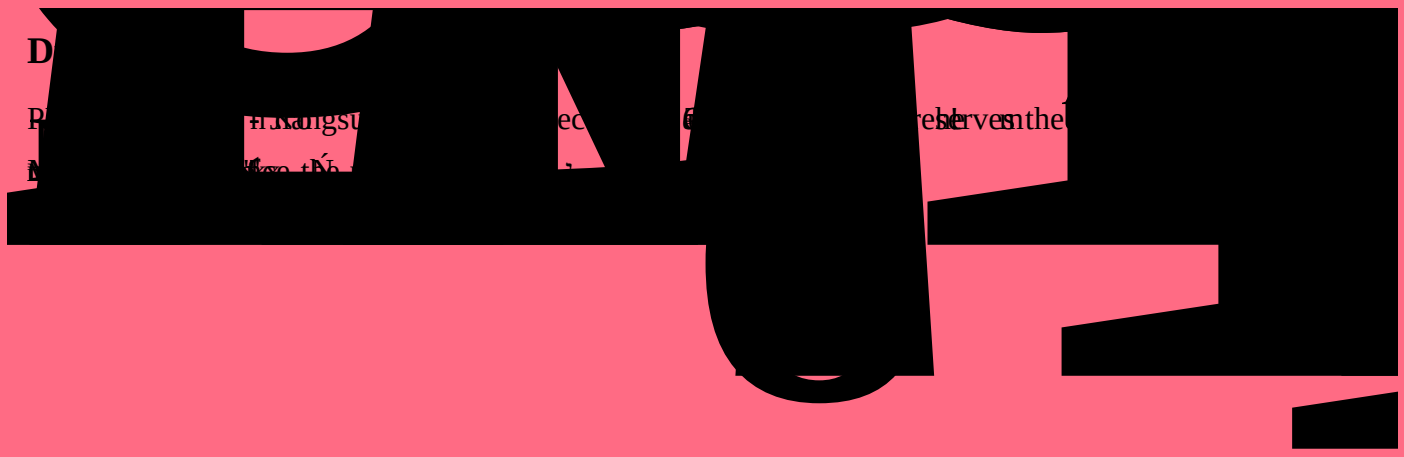
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Date	Revision	Changes
2023-12-23	Rev 1.0	Release of the datasheet
2025-02-06	Rev 1.1	Update
2025-04-08	Rev 1.2	Character Update
2026-06-23	Rev 1.3	Update thermal



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