

DESCRIPTION

The CZD5706 is designed for high current switching application.

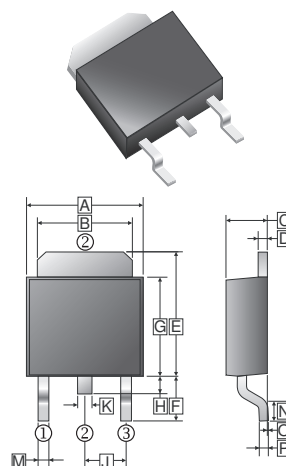
FEATURES

- ◆ Large Current Capacitance
- ◆ Low Collector to Emitter Saturation Voltage
- ◆ High-Speed Switching
- ◆ High Allowable Power Dissipation

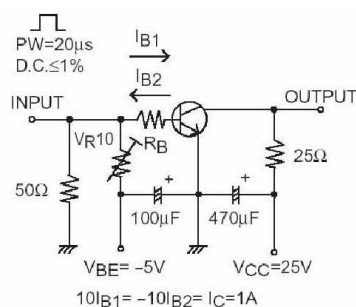
MARKING



D-Pack (TO-252)



SWITCHING TIME TEST CIRCUIT



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.80	J	2.30 TYP.	
B	5.20	5.50	K	0.70	0.90
C	2.20	2.40	L	0.50	0.70
D	0.40	0.60	M	0.60	1.00
E	6.40	7.35	N	1.40	1.78
F	2.20	3.00	O	0.00	1.27
G	5.40	5.80	P	0.43	0.58
H	0.60	1.20			

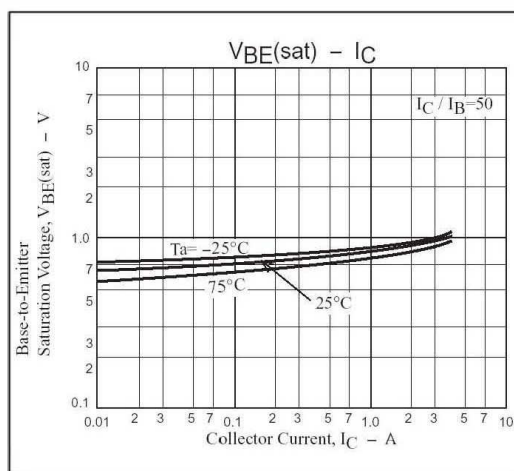
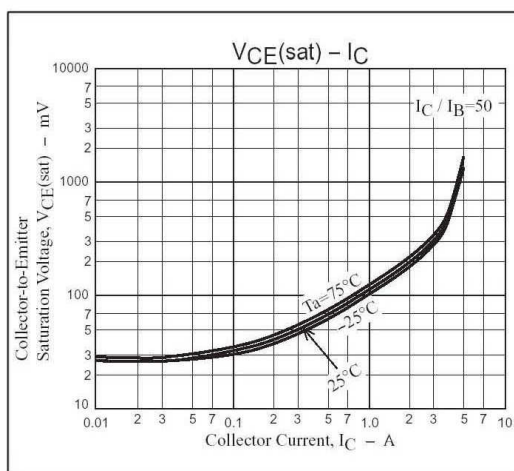
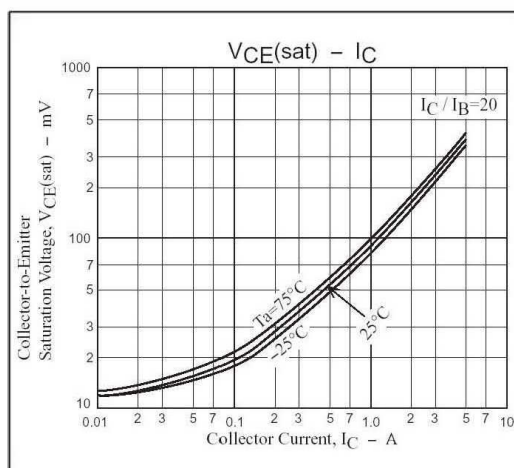
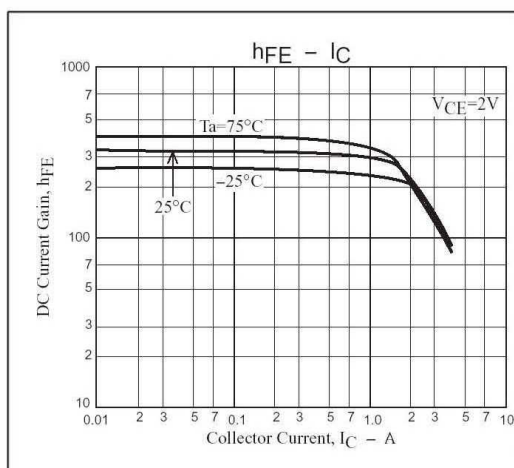
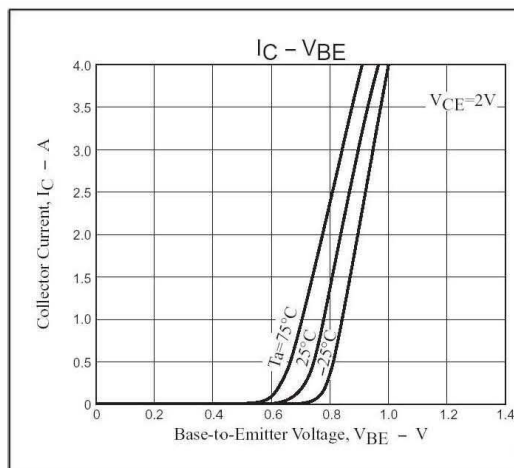
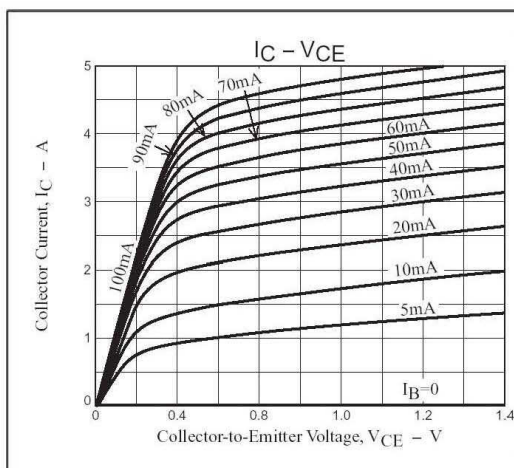
ABSOLUTE MAXIMUM RATINGS (T_A = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector to Base Voltage	V _{CBO}	80	V
Collector to Emitter Voltage	V _{CES}	80	V
Collector to Emitter Voltage	V _{CEO}	50	V
Emitter to Base Voltage	V _{EBO}	6	V
Collector Current	I _C	5	A
Collector Current(Pulse)	I _{CP}	7.5	A
Base Current	I _B	1.2	A
Total Power Dissipation (T _A =25°C)	P _D	0.8	W
Total Power Dissipation (T _C =25°C)	P _D	15	W
Junction, Storage Temperature	T _J , T _{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV _{CBO}	80	-	-	V	I _C =10μA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CES}	80	-	-	V	I _C =100μA, R _{BE} =0
Collector-Emitter Breakdown Voltage	BV _{CEO}	50	-	-	V	I _C =1mA, R _{BE} =∞
Emitter-Base Breakdown Voltage	BV _{EBO}	6	-	-	V	I _E =10μA, I _C =0
Collector Cut-Off Current	I _{CBO}	-	-	1	μA	V _{CB} =40V, I _E =0
Emitter Cut-Off Current	I _{EBO}	-	-	1	μA	V _{EB} =4V, I _C =0
Collector-Emitter Saturation Voltage	V _{CE(sat)1}	-	-	135	mV	I _C =1A, I _B =50mA
	V _{CE(sat)2}	-	-	240	mV	I _C =2A, I _B =100mA
Base-Emitter Voltage, On	V _{BE(sat)}	-	-	1.2	V	I _C =2A, I _B =100mA
DC Current Gain	h _{FE}	200	-	560		V _{CE} =2V, I _C =500mA
Transition Frequency	f _T	-	400	-	MHz	V _{CE} =10V, I _C =500mA
Output Capacitance	C _{OB}	-	15	-	pF	V _{CB} =10V, f=1MHz
Turn-On Time	T _{ON}	-	35	-	nS	See specified test circuit.
Storage Time	T _{STG}	-	300	-	nS	See specified test circuit.
Fall Time	T _F	-	20	-	nS	See specified test circuit.

CHARACTERISTIC CURVES



CHARACTERISTIC CURVES

