



Micro Commercial Components
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KTC3199

NPN General Purpose Application

Features

- High DC Current Gain: $h_{FE}=70\sim700$
- Excellent h_{FE} Linearity: $h_{FE}(0.1mA)/h_{FE}(2.0mA)=0.95(Typ)$
- Low Noise: $NF=1.0dB(Typ.)$, $10dB(Max.)$
- Complementary to KTA1267

Pin Configuration
Bottom View



Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	50	V
V_{CBO}	Collector-Base Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current	150	mA
I_E	Emitter Current	150	A
P_C	Collector power dissipation	400	mW
T_J	Junction Temperature	-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}C$

Electrical Characteristics @ 25 $^{\circ}C$ Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

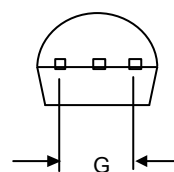
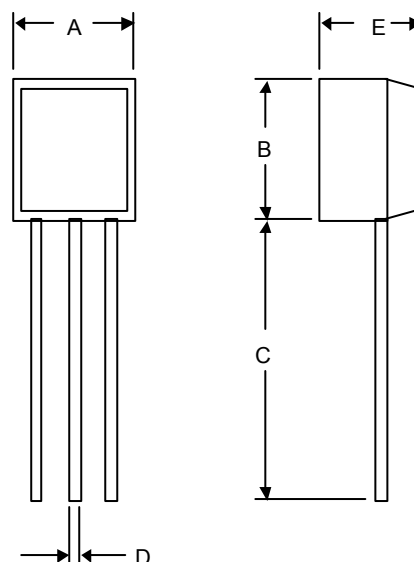
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=50Vdc, I_E=0$)	---	---	0.1	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=5.0Vdc, I_C=0$)	---	---	0.1	μA

ON CHARACTERISTICS

h_{FE}	DC Current gain ⁽¹⁾ ($I_C=2.0mA, V_{CE}=6.0Vdc$)	70	---	700	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=100mA, I_E=10mA$)	---	0.1	0.25	Vdc
f_T	Transistor Frequency ($V_{CE}=10Vdc, I_C=1.0mA$)	80	---	---	MHz
C_{ob}	Collector Output Capacitance ($V_{CB}=10Vdc, I_C=0, f=1.0MHz$)	---	2.0	3.5	pF
NF	Noise Figure ($V_{CE}=6.0Vdc, I_C=0.1mA, f=1.0kHz, R_g=10KOHM$)	---	1.0	10	dB

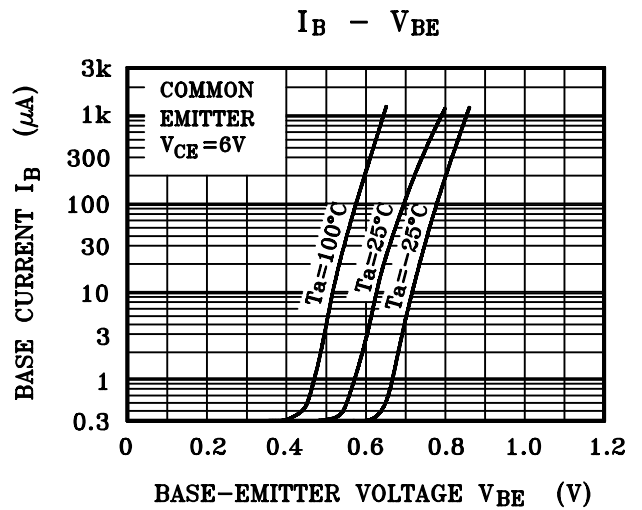
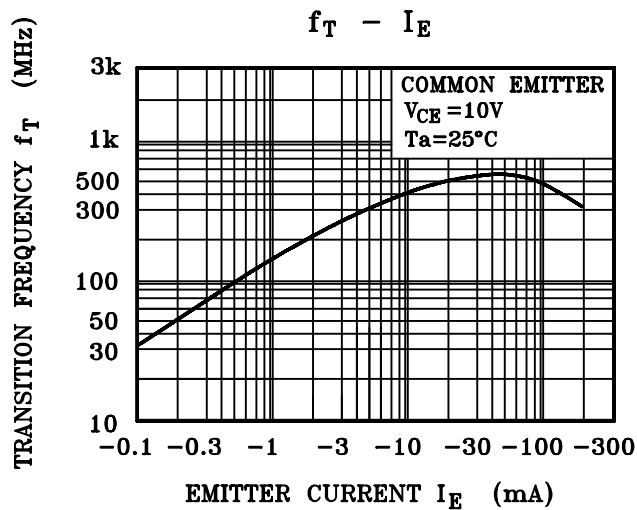
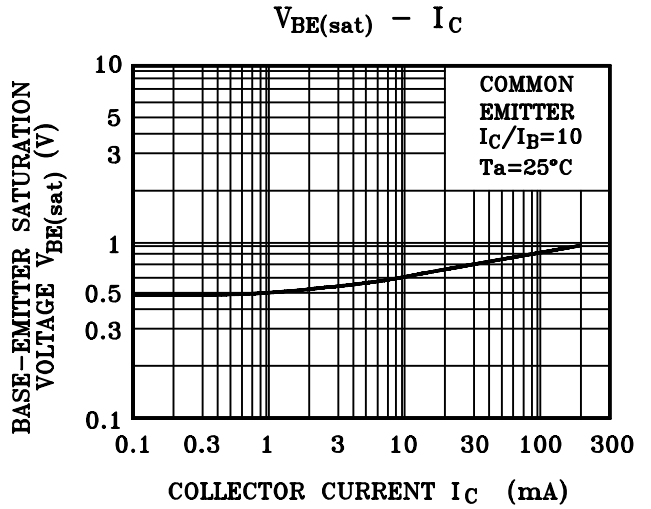
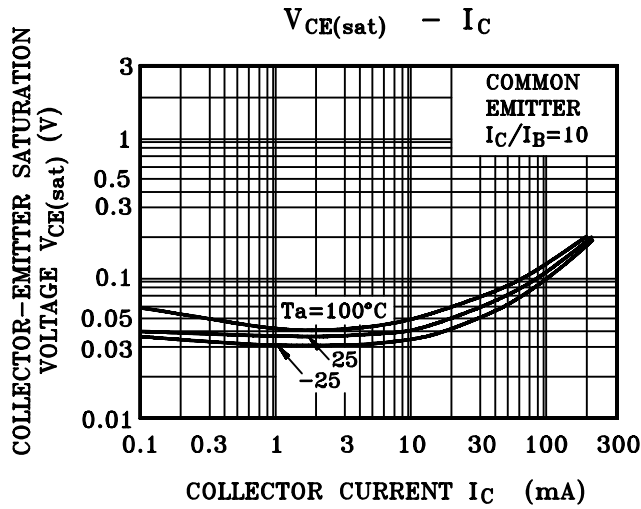
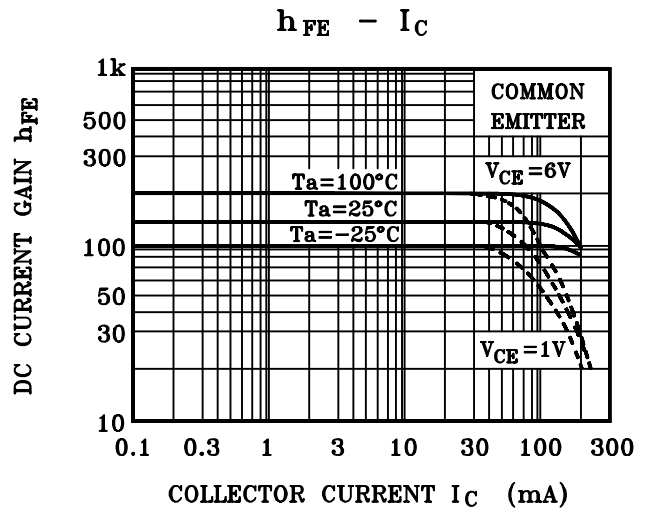
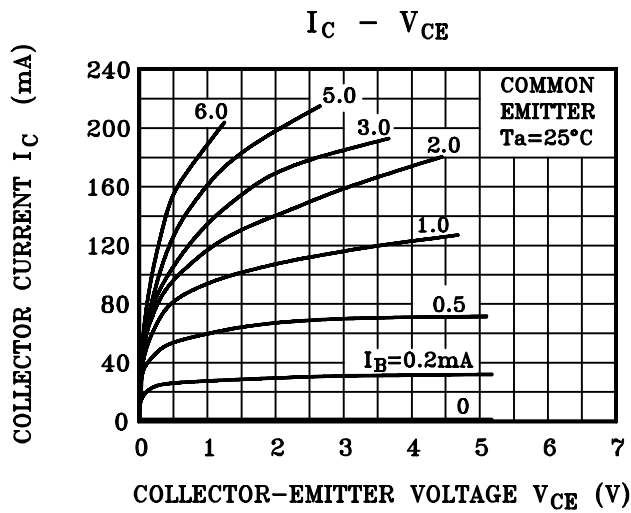
(1) h_{FE} Classification O: 70~140, Y: 120~240, GR: 200~400, BL: 300~700

TO-92S



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.16		4.00		
B	.12		3.00		
C	.59	---	15.00	---	
D	.02		0.45		
E	.08		2.00		
G	.20		5.00		

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