JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-323 Plastic-Encapsulate Transistors

SOT-323

1. BASE
2. EMITTER
3. COLLECTOR

KTC4075 TRANSISTOR (NPN)

FEATURES

- Excellent hFE linearity
- High hFE
- Low Noise
- Complementary to KTA2014

MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	150	mA
P_D	Total Device Dissipation	100	mW
T_J, T_{stg}	Junction and Storage Temperature	-55-125	℃

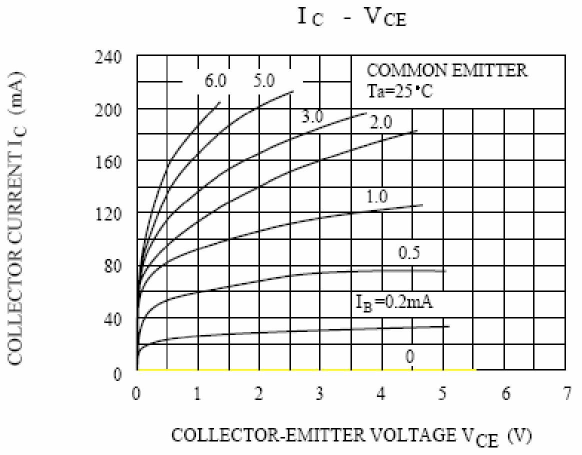
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

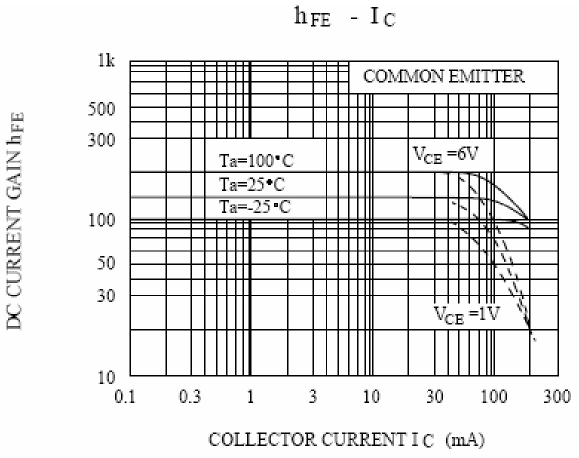
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E=0	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA, I_B=0	50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA, I_C=0	5		V
Collector cut-off current	I_{CBO}	V_{CB}=60V, I_E=0		0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0		0.1	μA
DC current gain	h_{FE}	V_{CE}= 6V, I_C=2mA	70	700	
Collector-emitter saturation voltage	V_{CEsat}	I_C=100mA, I_B= 10mA		0.25	V
Transition frequency	f_T	V_{CE}=10V, I_C= 1mA	80		MHz
Collector output capacitance	C_{ob}	V_{CE}=10V, I_E=0, f=1MHz		3.5	dB
Noise figure	NF	V_{CE}=6V,I_E=0.1mA, f=1KHz,R_G=10KΩ		10	dB

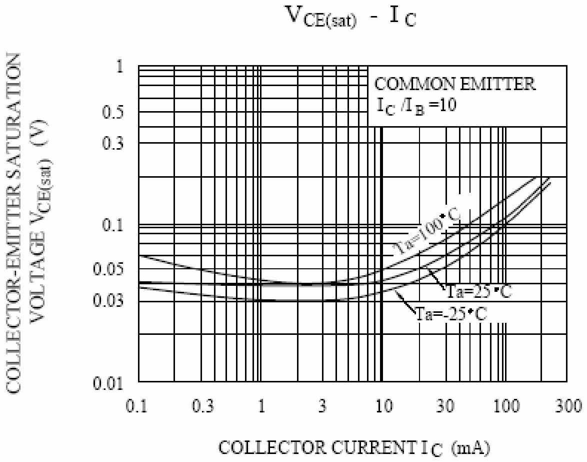
CLASSIFICATION OF h_{FE}

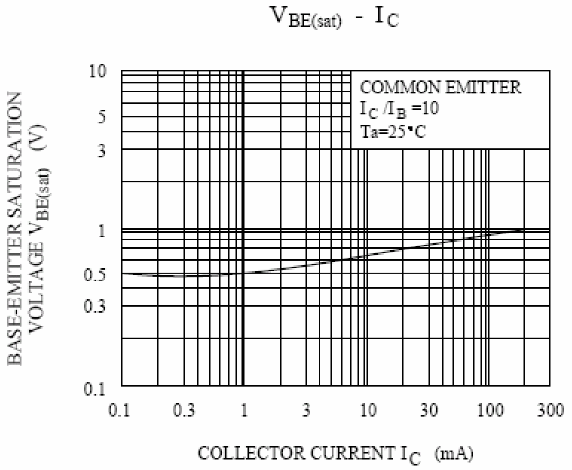
Rank	**O**	**Y**	**GR**	**BL**
Range	70~140	120~240	200~400	350~700
Marking	**LO**	**LY**	**LGR**	**LBL**

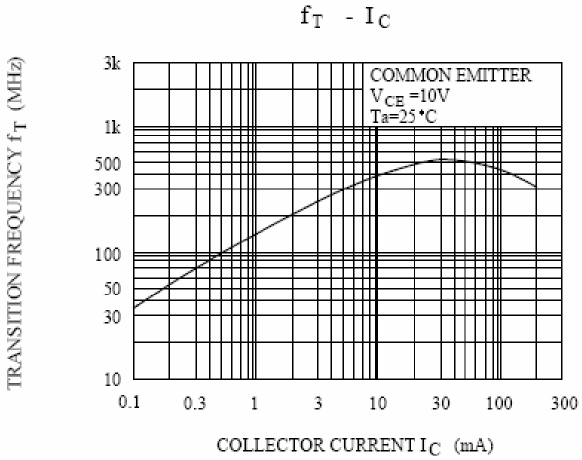
Typical Characteristics

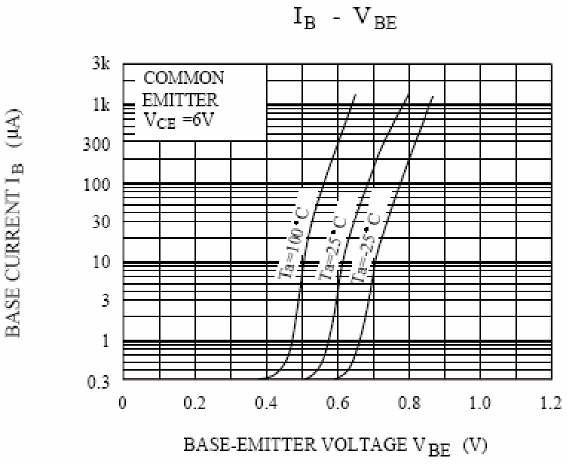




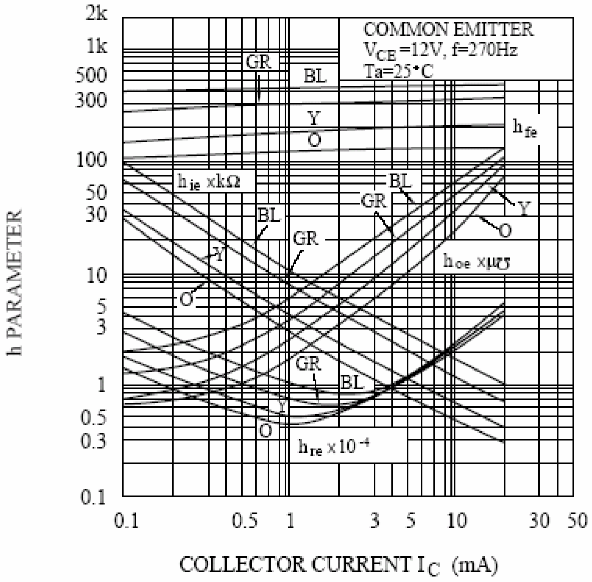




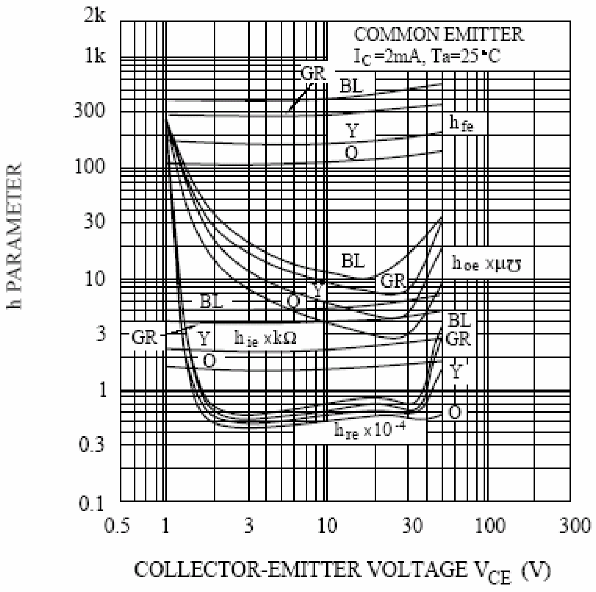




h PARAMETER - I$_C$



h PARAMETER - V$_{CE}$



Pc - Ta