KTA1663 TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-89

FEATURES

- High current applications
- Complementary to KTC4375

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

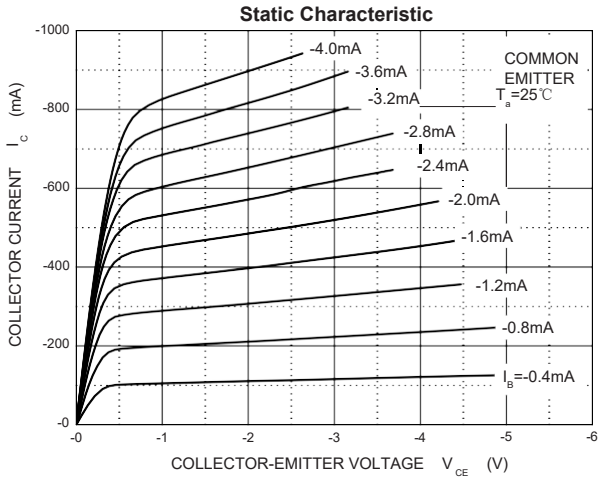
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1.5	A
P_C	Collector Power Dissipation	500	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

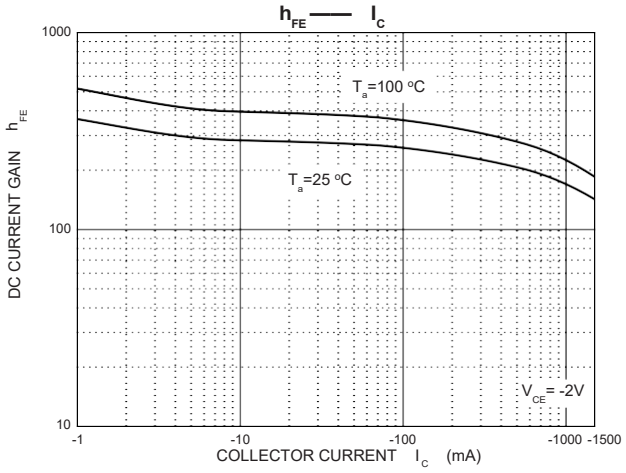
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

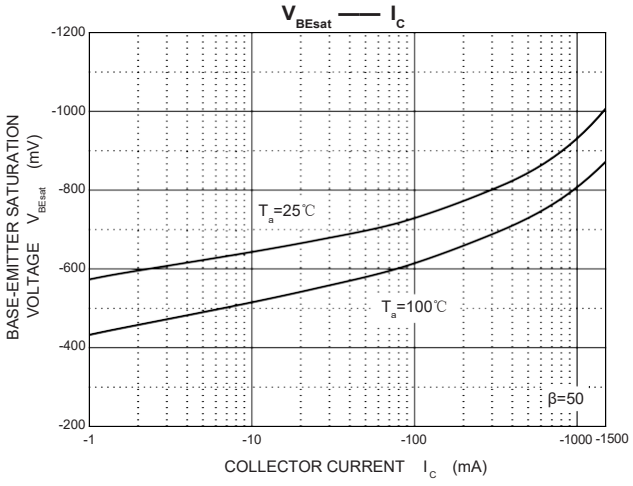
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-1mA, I_E=0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1mA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V, 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}=-2V, I_C=-0.5A	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1.5A, I_B=-30mA			-2	V
Base-emitter voltage	V_{BE}	V_{CE}=-2V, I_C=-0.5A			-1	V
Transition frequency	f_T	V_{CE}=-2V, I_C=-500mA		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0,f=1MHz			50	MHz

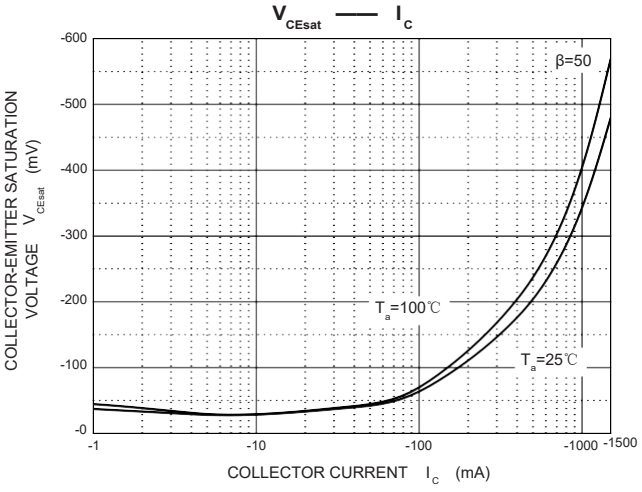
CLASSIFICATION OF h_{FE}

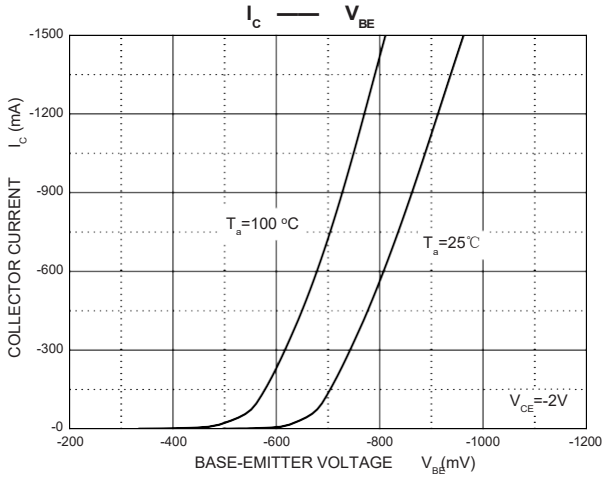
Rank	O	Y
Range	100-200	160-320
Marking	HO	HY

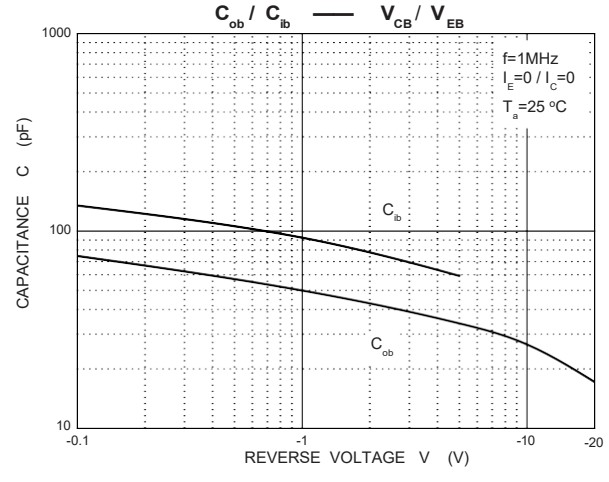

Static Characteristic
COMMON EMITTER
T_a=25℃
-4.0mA
-3.6mA
-3.2mA
-2.8mA
-2.4mA
-2.0mA
-1.6mA
-1.2mA
-0.8mA
I_B=-0.4mA
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

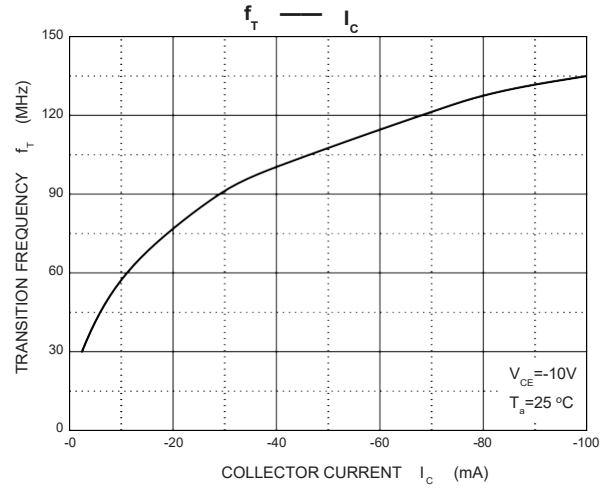

h_{FE} — I_C
T_a=100 ℃
T_a=25 ℃
V_{CE}= -2V
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)

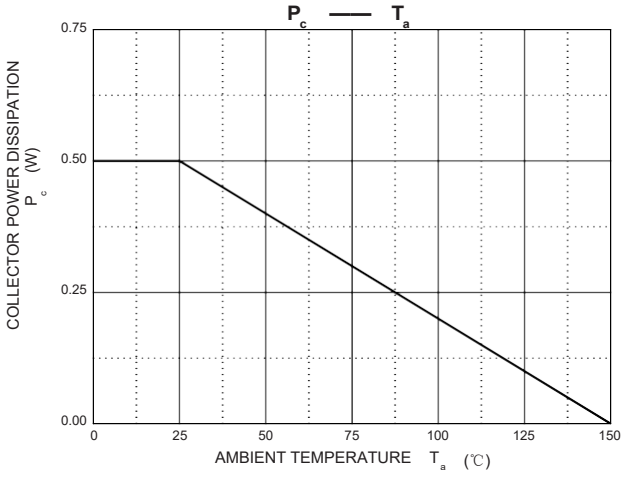

V_{BEsat} — I_C
T_a=25℃
T_a=100℃
β=50
BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (mV)
COLLECTOR CURRENT I_C (mA)


V_{CEsat} — I_C
β=50
T_a=100℃
T_a=25℃
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (mV)
COLLECTOR CURRENT I_C (mA)


I_C — V_{BE}
T_a=100 ℃
T_a=25℃
V_{CE}=-2V
COLLECTOR CURRENT I_C (mA)
BASE-EMITTER VOLTAGE V_{BE}(mV)


C_{ob} / C_{ib} — V_{CB} / V_{EB}
f=1MHz
I_E=0 / I_C=0
T_a=25 ℃
C_{ib}
C_{ob}
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)


f_T — I_C
V_{CE}=-10V
T_a=25 ℃
TRANSITION FREQUENCY f_T (MHz)
COLLECTOR CURRENT I_C (mA)


P_c — T_a
COLLECTOR POWER DISSIPATION P_c (W)
AMBIENT TEMPERATURE T_a (℃)