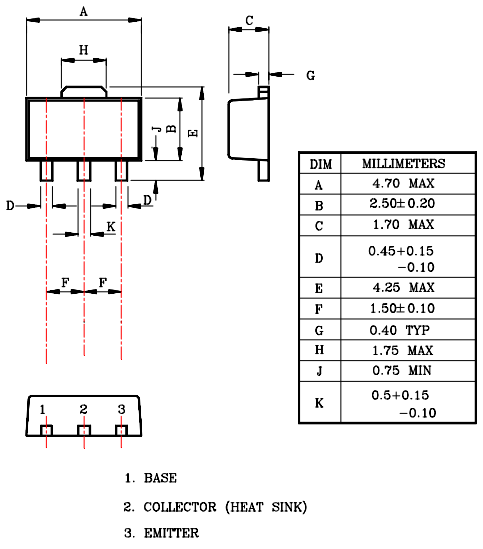
KTA1663

EPITAXIAL PLANAR PNP TRANSISTOR

HIGH CURRENT APPLICATION.

FEATURES

- 1W (Mounted on Ceramic Substrate).
- Small Flat Package.
- Complementary to KTC4375.



DIM	MILLIMETERS
A	4.70 MAX
B	2.50±0.20
C	1.70 MAX
D	0.45+0.15 −0.10
E	4.25 MAX
F	1.50±0.10
G	0.40 TYP
H	1.75 MAX
J	0.75 MIN
K	0.5+0.15 −0.10

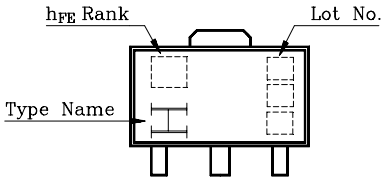
SOT−89

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1.5	A
Base Current	I_B	-0.3	A
Collector Power Dissipation	P_C	500	mW
	P_C*	1	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

P_C*:KTA1663 mounted on ceramic substrate(250mm^{2}x0.8t)

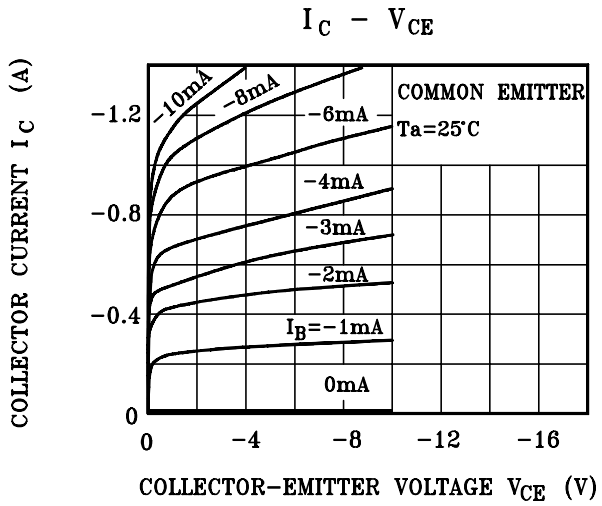
Marking

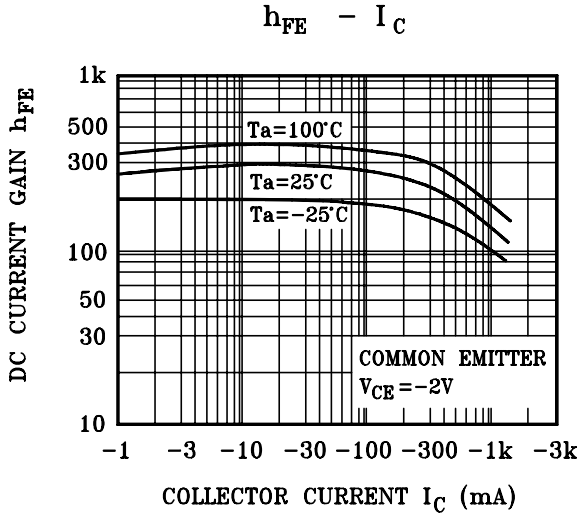


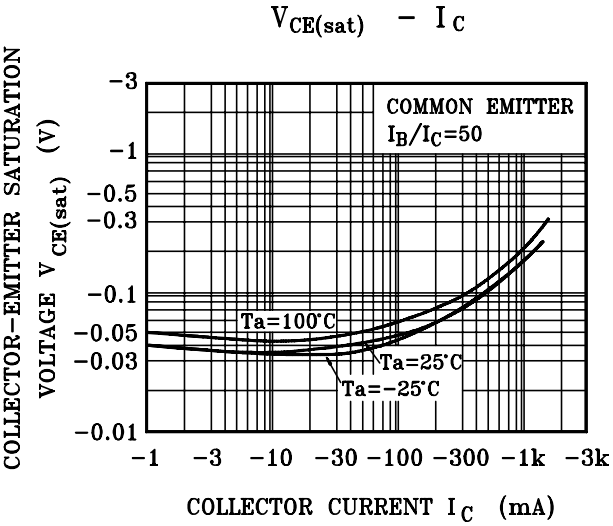
ELECTRICAL CHARACTERISTICS (Ta=25℃)

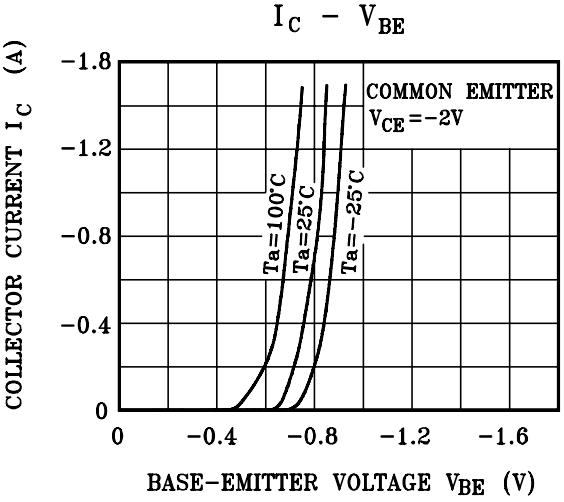
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-30V, I_E=0	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-1mA, I_C=0	-5.0	-	-	V
DC Current Gain	h_{FE}(Note)	V_{CE}=-2V, I_C=-500mA	100	-	320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-1.5A, I_B=-0.03A	-	-	-2.0	V
Base-Emitter Voltage	V_{BE}	V_{CE}=-2V, I_C=-500mA	-	-	-1.0	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	pF

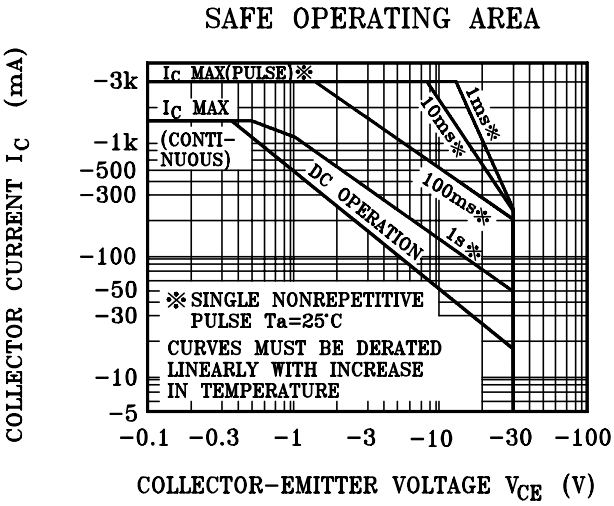
Note : h_{FE} Classification O:100～200 , Y:160～320

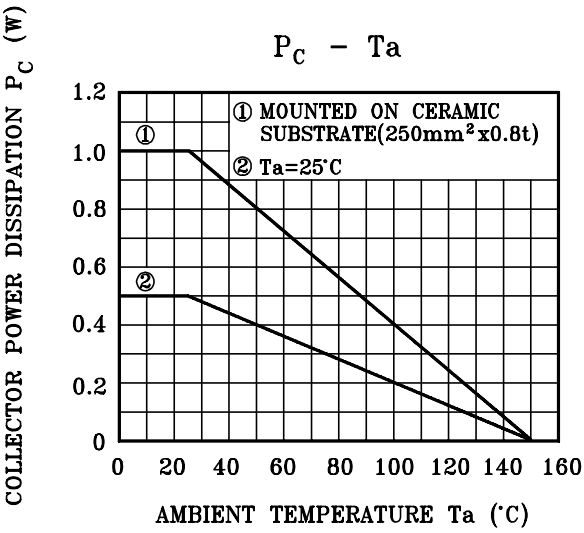

I_C – V_{CE}
COMMON EMITTER
Ta=25°C
−10mA
−8mA
−6mA
−4mA
−3mA
−2mA
I_B=−1mA
0mA
COLLECTOR CURRENT I_C (A)
COLLECTOR−EMITTER VOLTAGE V_{CE} (V)


h_{FE} – I_C
Ta=100°C
Ta=25°C
Ta=−25°C
COMMON EMITTER
V_{CE}=−2V
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)


$V_{CE(sat)}$ – I_C
COMMON EMITTER
I_B/I_C=50
Ta=100°C
Ta=25°C
Ta=−25°C
COLLECTOR−EMITTER SATURATION VOLTAGE $V_{CE(sat)}$ (V)
COLLECTOR CURRENT I_C (mA)


I_C – V_{BE}
COMMON EMITTER
V_{CE}=−2V
Ta=100°C
Ta=25°C
Ta=−25°C
COLLECTOR CURRENT I_C (A)
BASE−EMITTER VOLTAGE V_{BE} (V)


SAFE OPERATING AREA
I_C MAX(PULSE)※
I_C MAX
(CONTI-NUOUS)
DC OPERATION
10ms※
1ms※
100ms※
1s※
※SINGLE NONREPETITIVE PULSE Ta=25°C
CURVES MUST BE DERATED LINEARLY WITH INCREASE IN TEMPERATURE
COLLECTOR CURRENT I_C (mA)
COLLECTOR−EMITTER VOLTAGE V_{CE} (V)


P_C – Ta
① MOUNTED ON CERAMIC SUBSTRATE(250mm²x0.8t)
② Ta=25°C
COLLECTOR POWER DISSIPATION P_C (W)
AMBIENT TEMPERATURE Ta (°C)