KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR TECHNICAL DATA

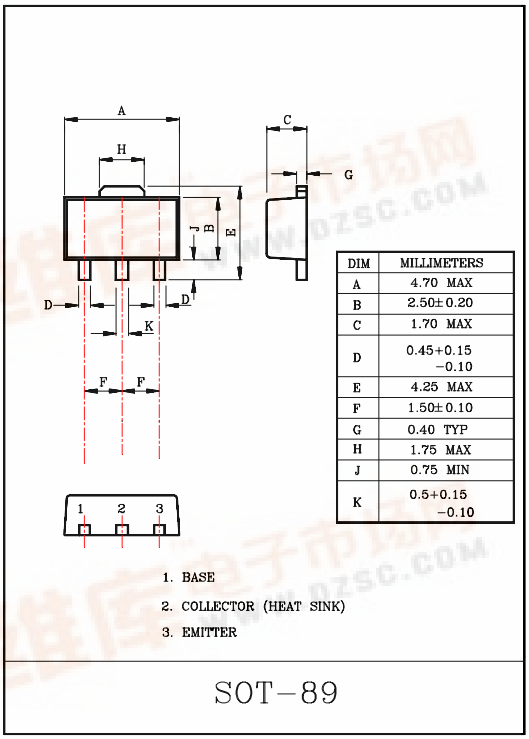
KTC4375

EPITAXIAL PLANAR NPN TRANSISTOR

HIGH CURRENT APPLICATION.

FEATURES

- 1W (Mounted on Ceramic Substrate).
- Small Flat Package.
- Complementary to KTA1663.



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

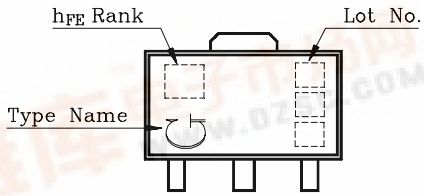
SOT-89

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* : KTC4375 mounted on ceramic substrate ($250mm^2$x0.8t)

Marking



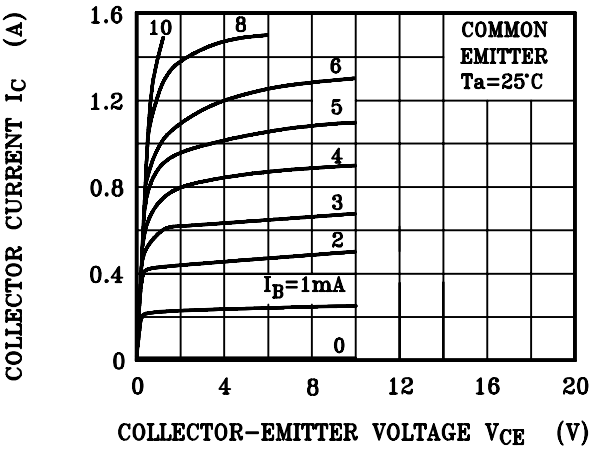
ELECTRICAL CHARACTERISTICS (Ta=25℃)

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	-	-	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	-	-	40	pF

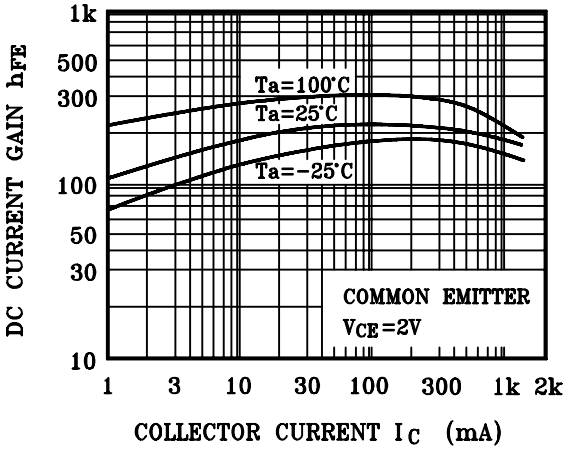
Note : h_{FE} Classification O:100~200, Y:160~320

KTC4375

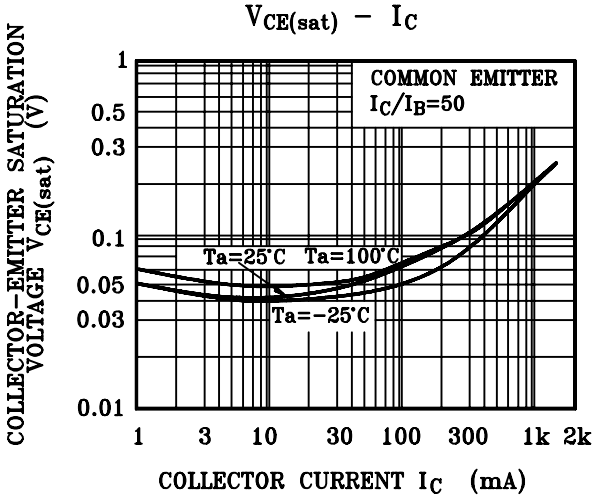
I_C – V_{CE}



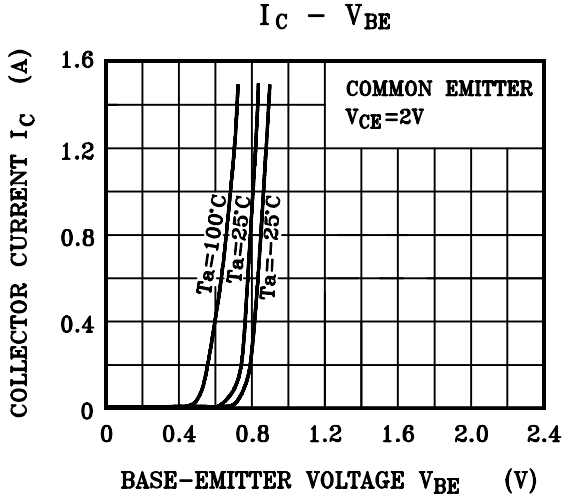
h_{FE} – I_C



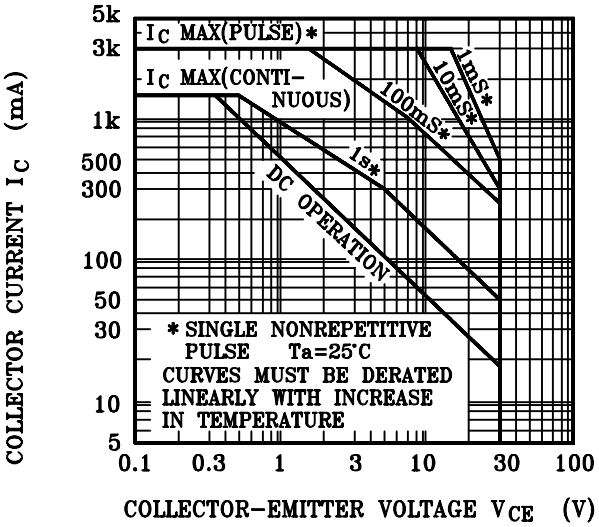
$V_{CE(sat)}$ – I_C



I_C – V_{BE}



SAFE OPERATING AREA



P_C – Ta