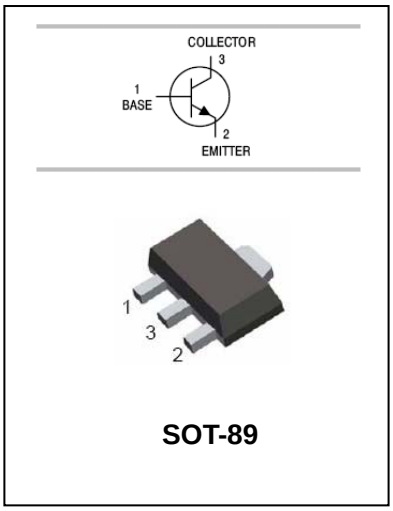
Epitaxial Planar NPN Transistor **KTC4375**

FEATURES

- P_C=1W(Mounted on ceramic substrate).
- Small flat package.
- Complementary: KTA1663.

Lead-free



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
KTC4375	GO/GY	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
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 -Continuous	1.5	A
I_B	Base current	0.3	A
P_C	Collector Power Dissipation	500	mW
P_C^*		1	W
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

P_C^*:KTC4375mounted on ceramic substrate(250mm^{2}x0.8t)

Epitaxial Planar NPN Transistor **KTC4375**

ELECTRICAL CHARACTERISTICS @ Ta=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			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			100	nA
DC current gain	h_{FE}	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_B= 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

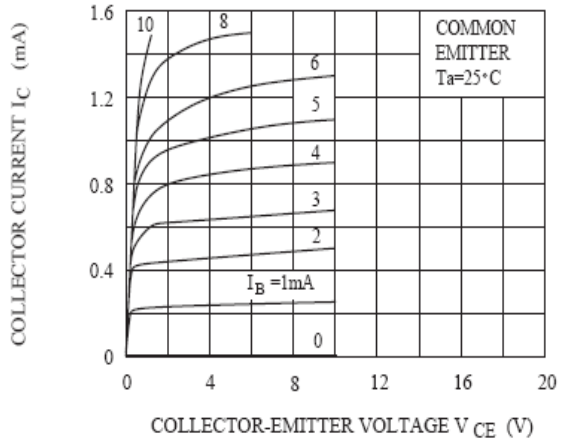
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	100-200	160-320
MARKING	GO	GY

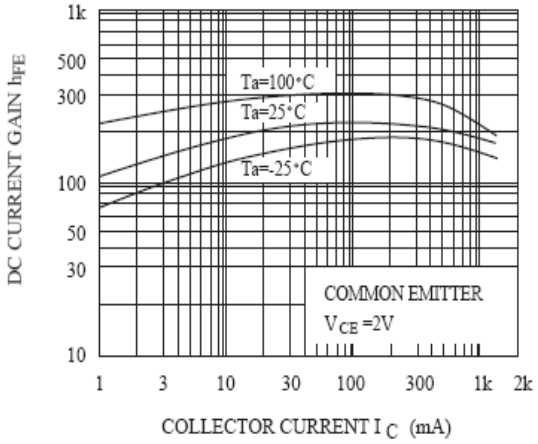
Epitaxial Planar NPN Transistor **KTC4375**

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

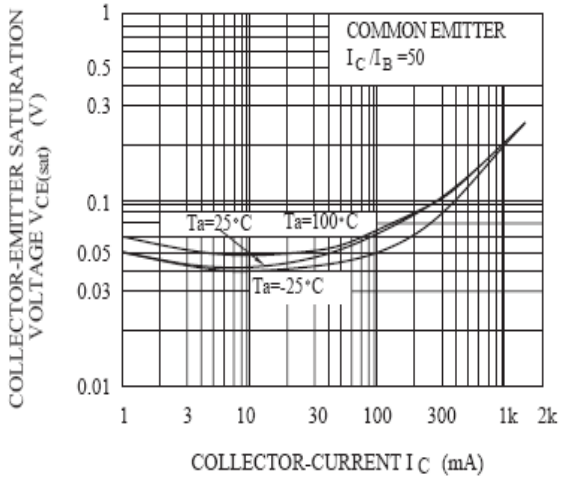
I_C - V_{CE}



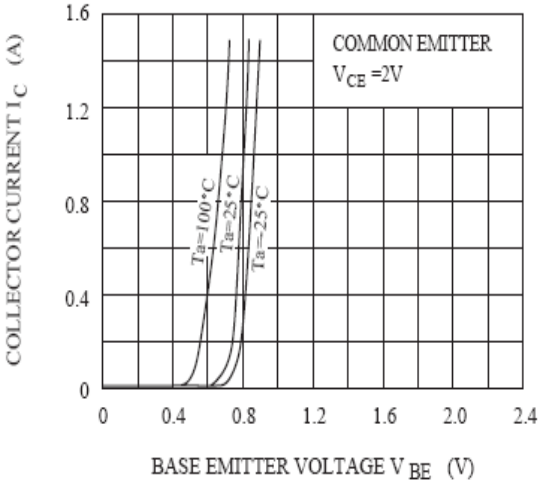
h_{FE} - I_C



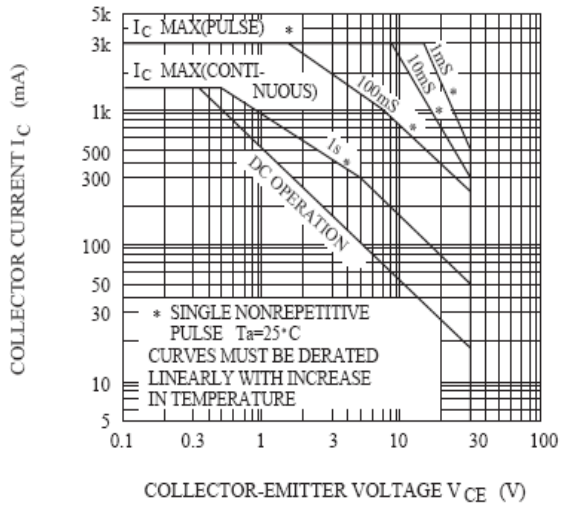
$V_{CE(sat)}$ - I_C



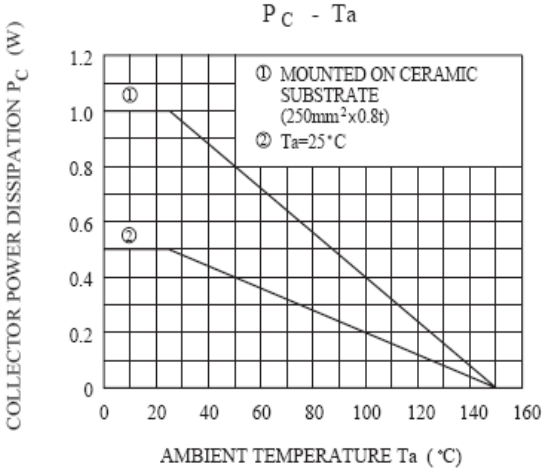
I_C - V_{BE}



SAFE OPERATING AREA



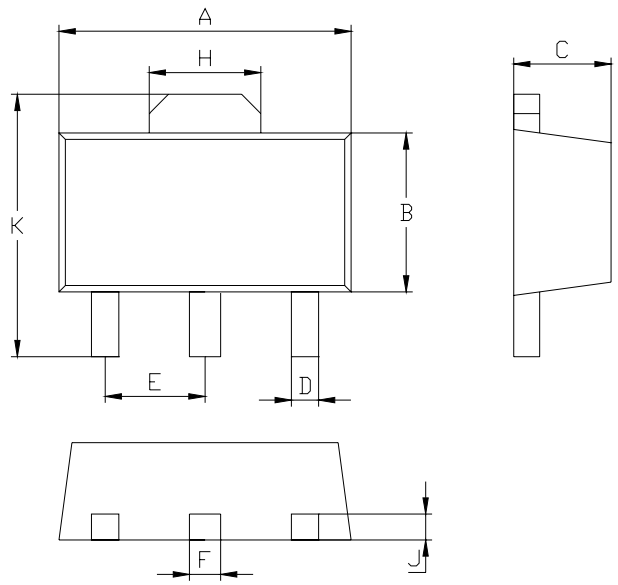
P_C - Ta



Epitaxial Planar NPN Transistor **KTC4375**

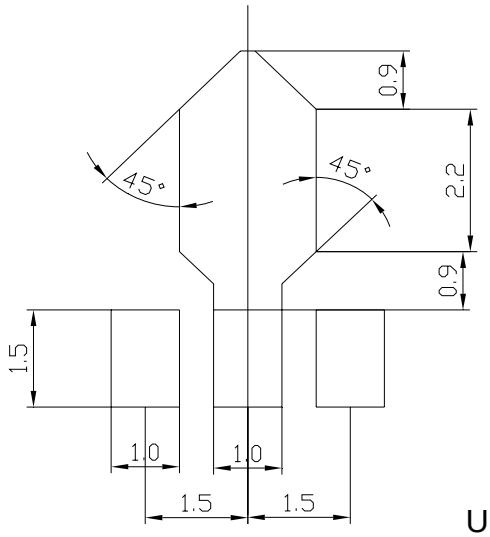
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.5	4.7
B	2.3	2.7
C	1.5Typical	
D	0.35	0.55
E	1.4	1.6
F	0.4	0.6
H	1.55	1.75
J	0.4Typical	
K	4.15	4.25
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
KTC4375	SOT-89	1000/Tape&Reel