



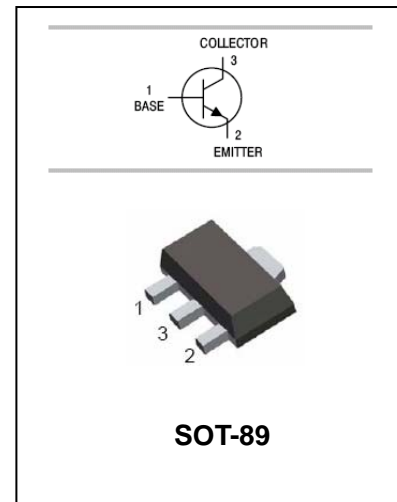
DONGGUAN NANJING ELECTRONICS LTD.,

Epitaxial Planar NPN Transistor

KTC4375

FEATURES

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



ORDERING INFORMATION

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

MAXIMUM RATING @ $T_a=25^{\circ}C$ 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 to +150	$^{\circ}C$

P_C^* : KTC4375 mounted on ceramic substrate(250mm²x0.8t)

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ELECTRICAL CHARACTERISTICS @ Ta=25°C 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

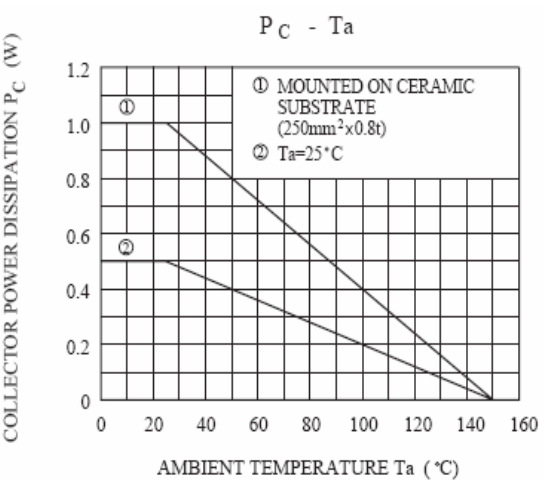
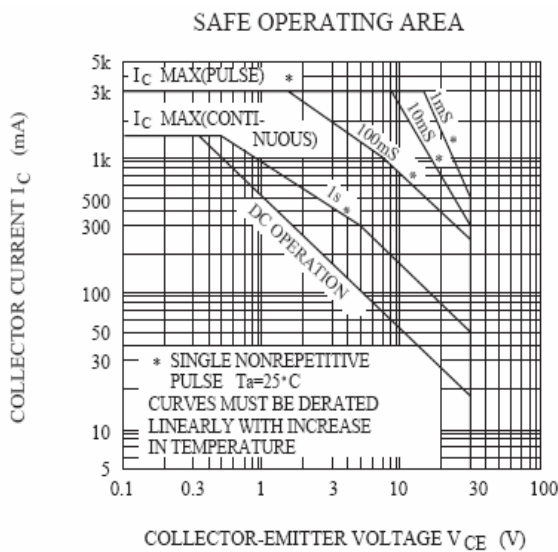
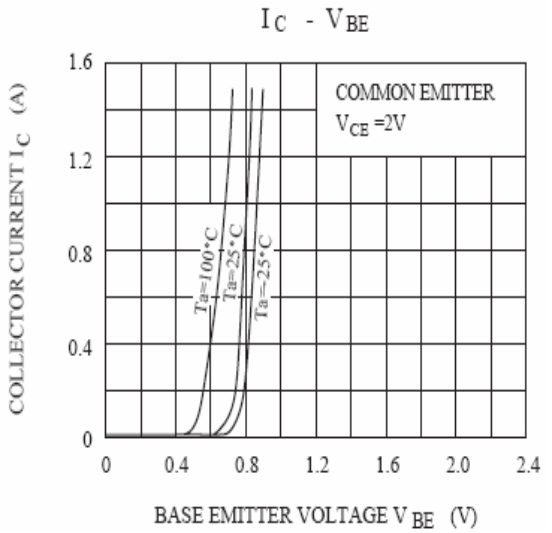
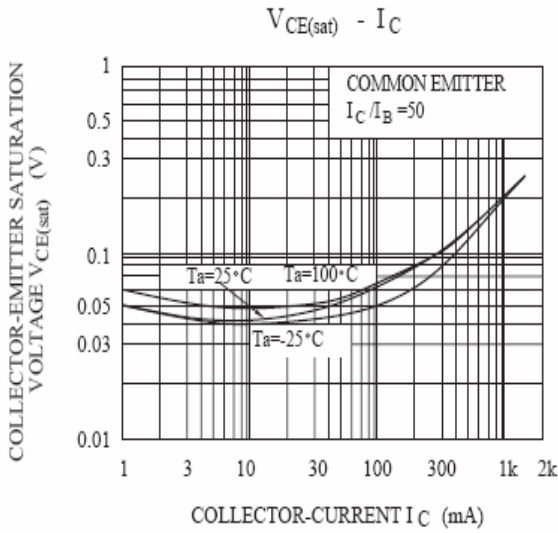
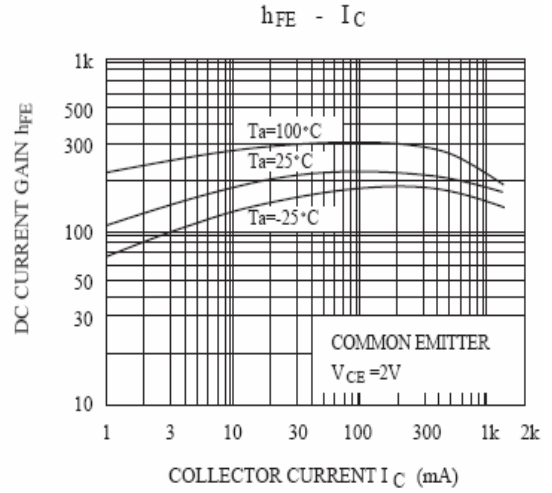
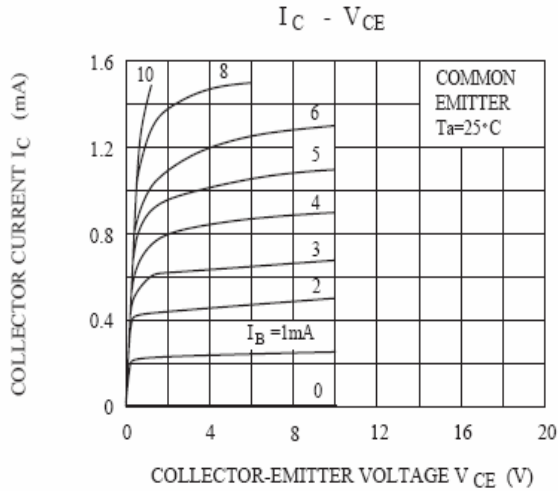
CLASSIFICATION OF $h_{FE(1)}$

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

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



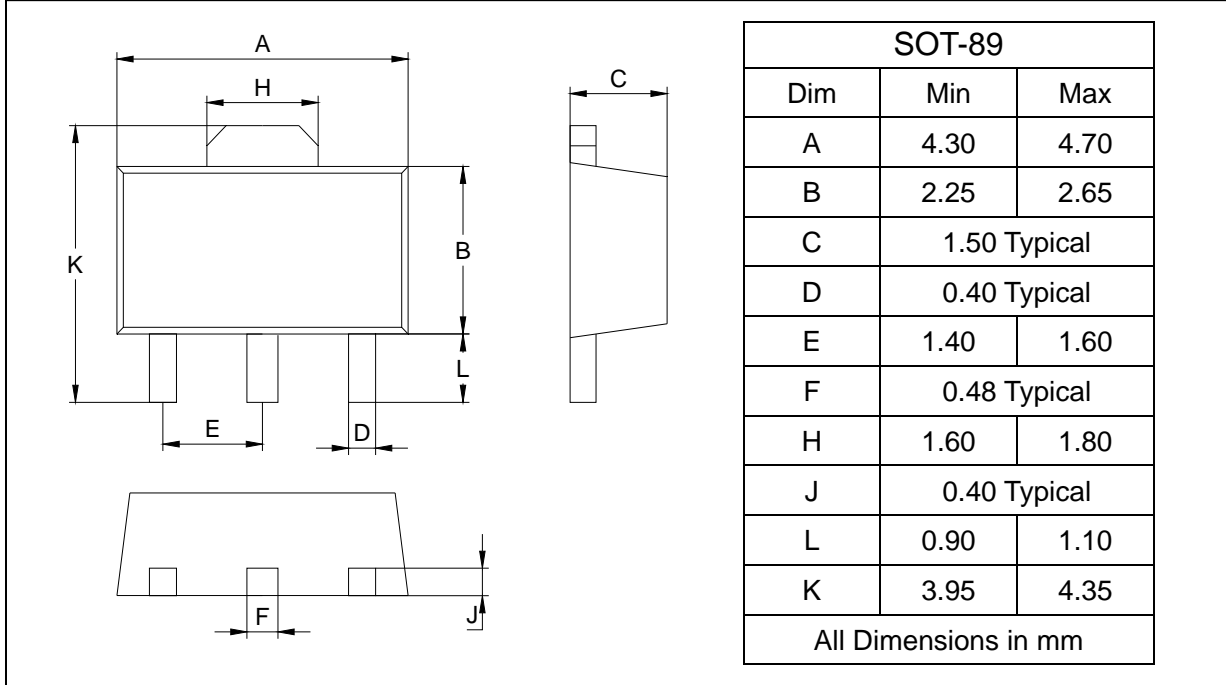
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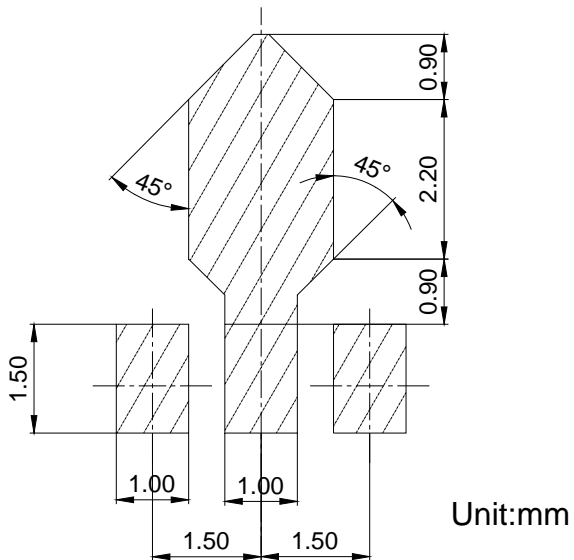
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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