



Epitaxial Planar NPN Transistor

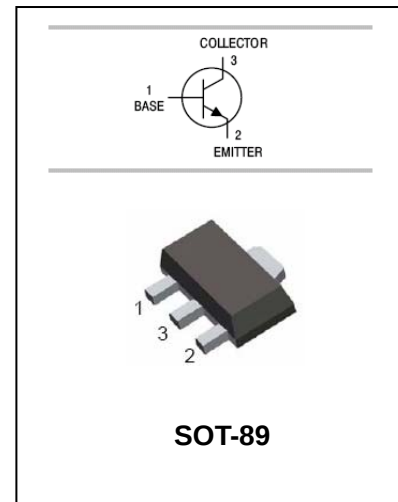
KTC4376

FEATURES

- $P_C=1W$ (Mounted on ceramic substrate).
- Small flat package.
- Complementary: KTA1664.



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
KTC4376	PO/PY	SOT-89

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.8	A
I_B	Base current	0.16	A
P_C	Collector Power Dissipation	500	mW
P_C^*		1	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

P_C^* : KTC4376 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	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	35			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}	$V_{CB}=35V, I_E=0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			100	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=100mA$	100		320	
	$h_{FE(2)}$	$V_{CE}=1V, I_C=700mA$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=20mA$			0.5	V
Base-emitter voltage	V_{BE}	$V_{CE}=1V, I_B=10mA$	0.5		0.8	V
Transition frequency	f_T	$V_{CE}=5V, I_C=10mA$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		13		pF

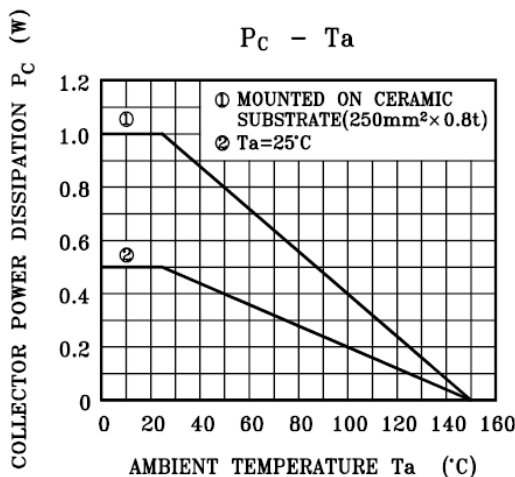
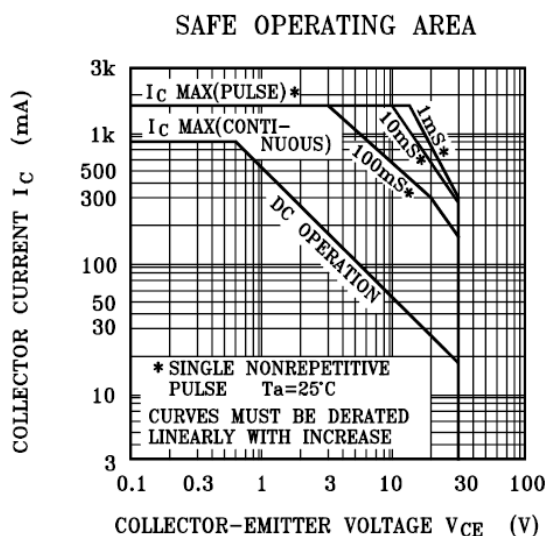
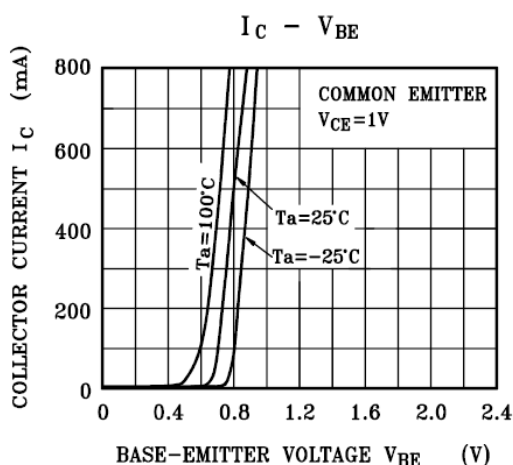
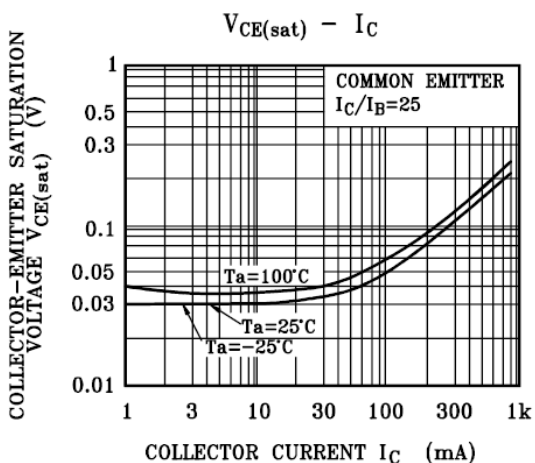
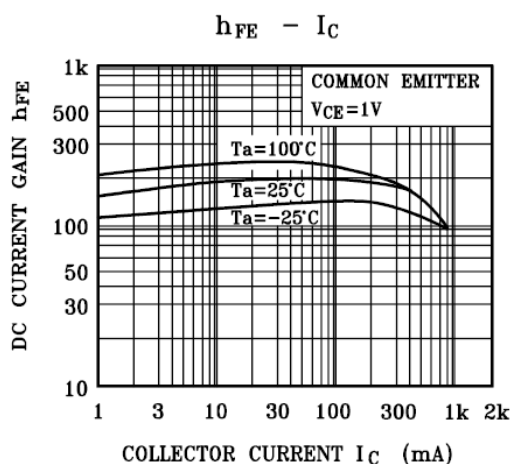
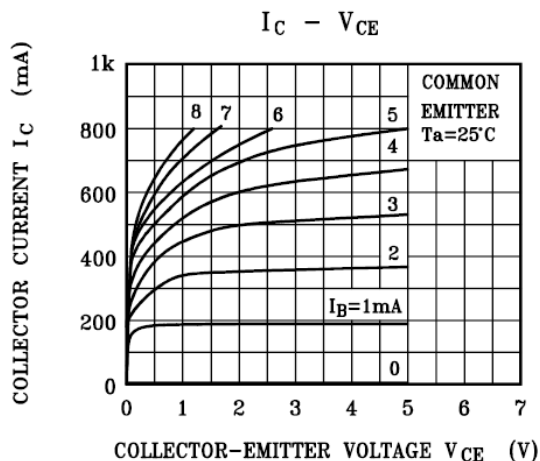
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	100-200	160-320
MARKING	PO	PY

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



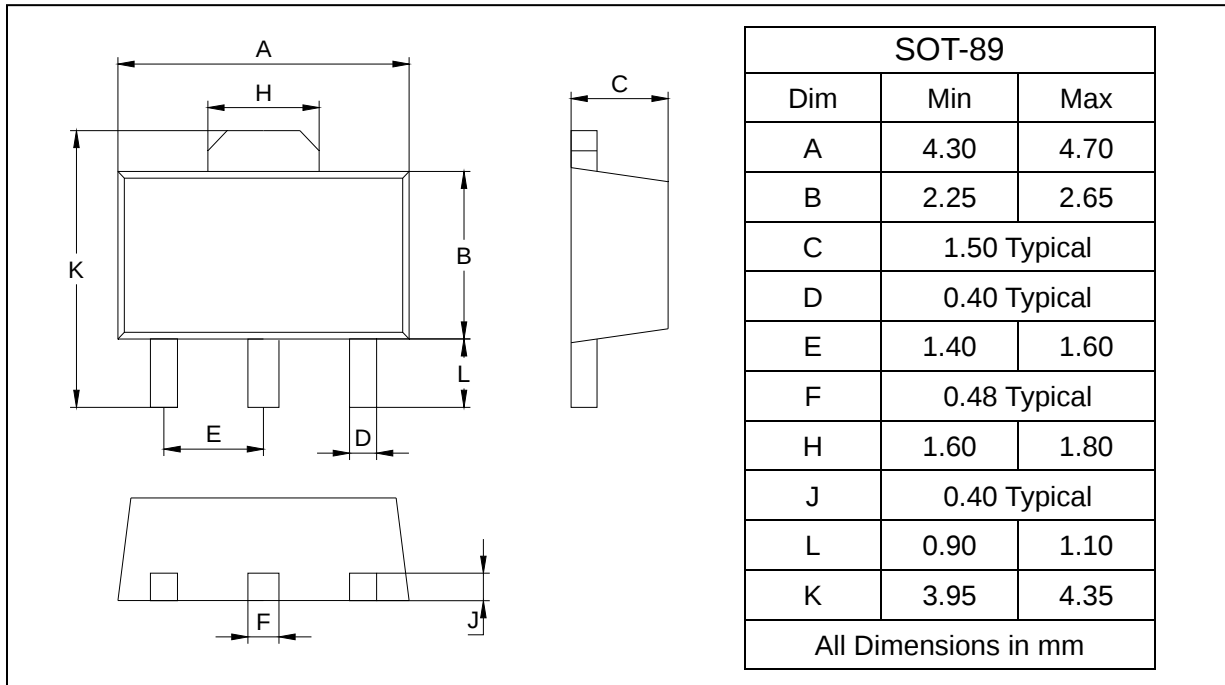
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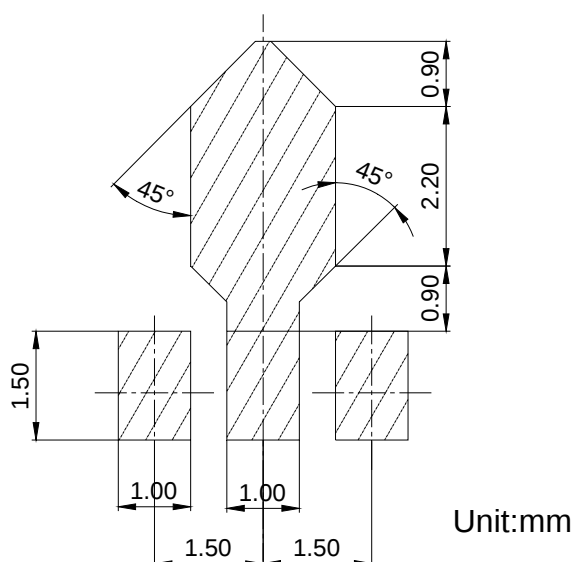
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
KTC4376	SOT-89	1000/Tape&Reel