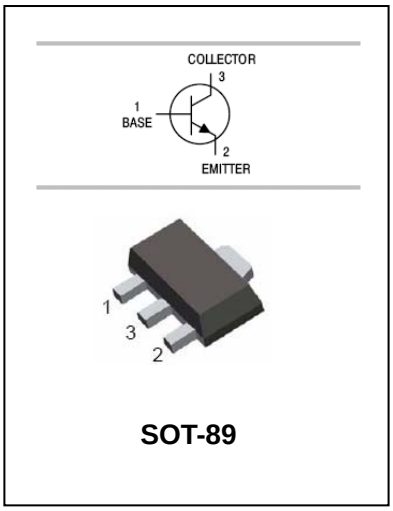
NPN Silicon Epitaxial Planar Transistor **KTC4379**

FEATURES

Lead-free

- High speed switching time.
- Low saturation voltage:$V_{CE(sat)}$=0.5V(Max)
- P_C=1~2W(Mounted on ceramic substrate)
- Small flat package.
- Complementary: KTA1666.



SOT-89

APPLICATIONS

- Power amplifier application.
- Power switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
KTC4379	UO/UY	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	2	A
I_B	Base Current	0.4	A
P_C	Collector Dissipation	500	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

NPN Silicon Epitaxial Planar Transistor **KTC4379**

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	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=50V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=2V,I_C=500mA V_{CE}=2V,I_C=1.5A	70 40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1A, I_B= 50mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=1A, I_B= 50mA			1.2	V
Transition frequency	f_T	V_{CE}=2V, I_C= 0.5A		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		30		pF

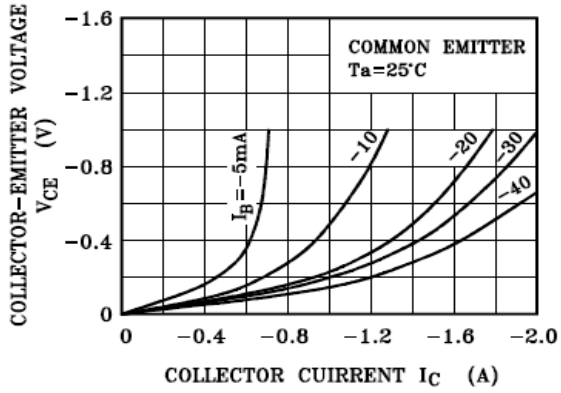
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120-240
MARKING	UO	UY

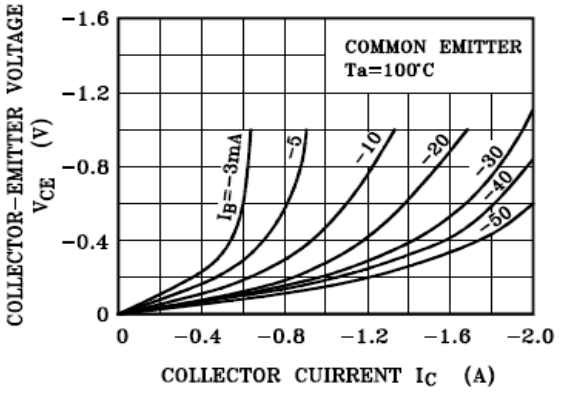
NPN Silicon Epitaxial Planar Transistor **KTC4379**

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

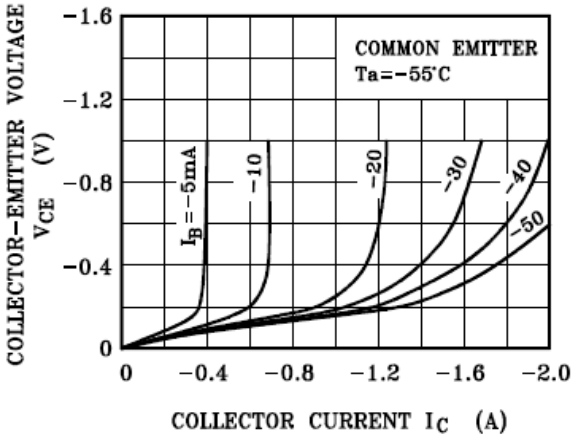
V_{CE} – I_C



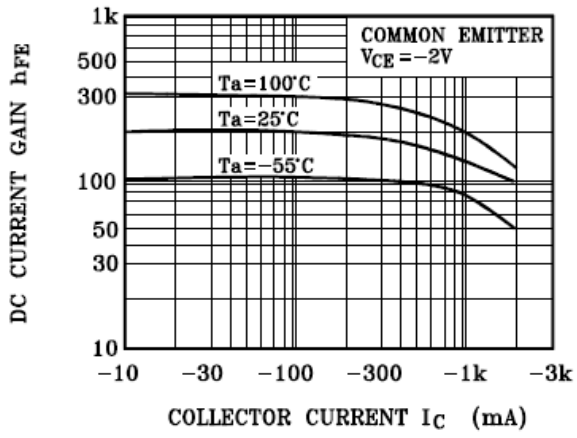
V_{CE} – I_C



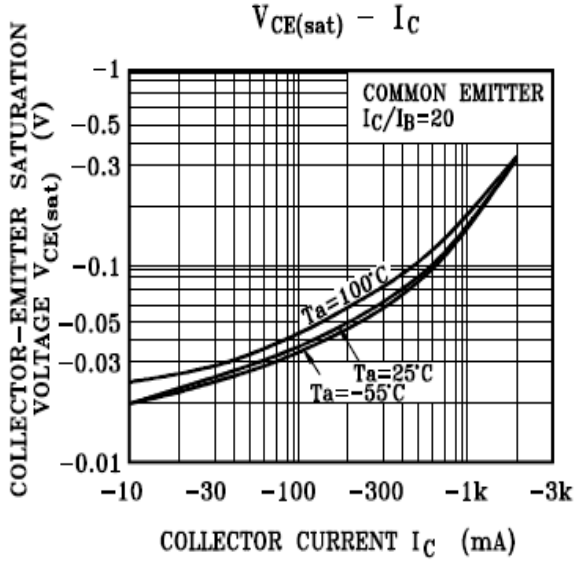
V_{CE} – I_C



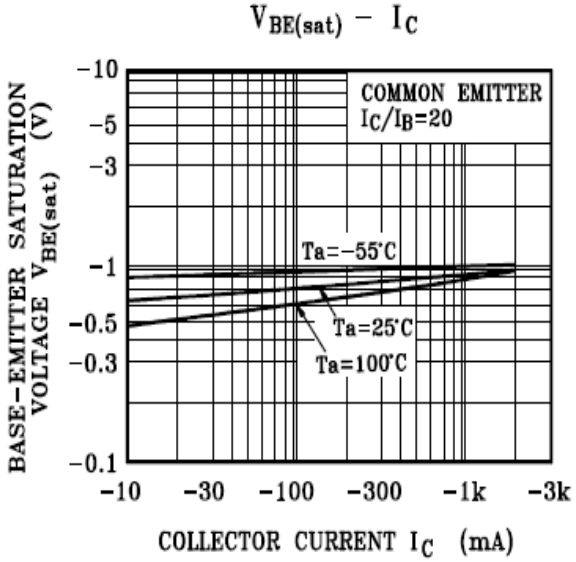
h_{FE} – I_C



$V_{CE(sat)}$ – I_C



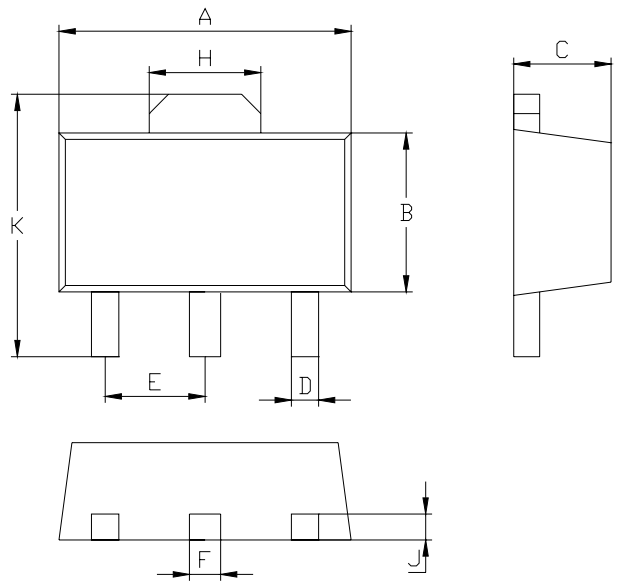
$V_{BE(sat)}$ – I_C



NPN Silicon Epitaxial Planar Transistor **KTC4379**

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		

PACKAGE INFORMATION

Device	Package	Shipping
KTC4379	SOT-89	1000/Tape&Reel