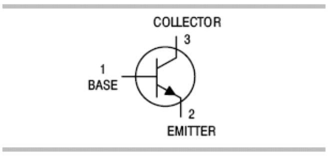
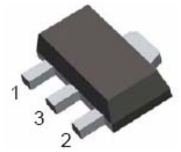
NPN Silicon Epitaxial Planar Transistor **KTD1624**

FEATURES

Lead-free

- Adoption of MBIT processes.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- Complementary: KTB1124.





SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
KTD1624	YA/YB/YC	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
I_{CP}	Collector Current –Continuous(Pulse)	6	A
P_C	Collector Dissipation	500	mW
$T_{j,}T_{stg}$	Junction and Storage Temperature	-55 to +150	℃

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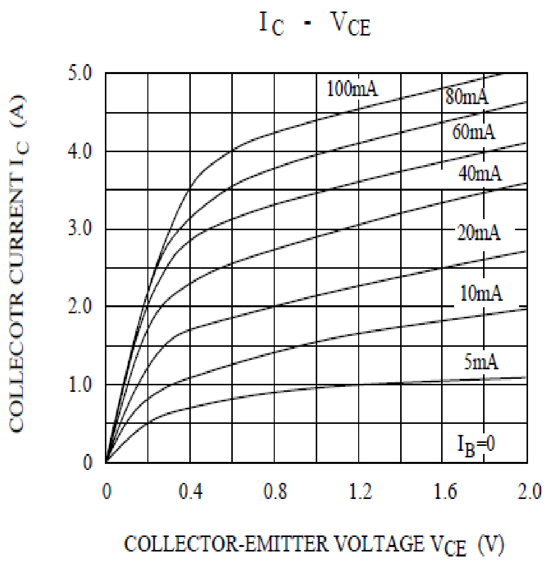
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

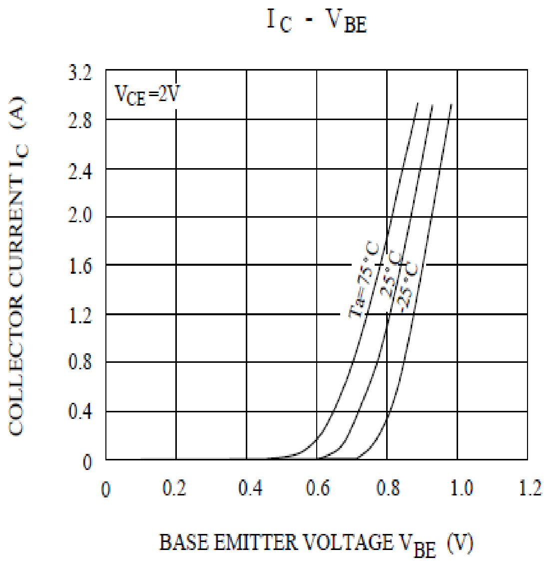
Parameter	**Symbol**	**Test conditions**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector cut-off current	I_{CBO}	V_{CB}=40V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=2V,I_C=100mA V_{CE}=2V,I_C=3A	100 35		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A, I_B= 100mA		0.19	0.5	V
Base-emitter voltage	V_{BE}	V_{CE}=2V, I_B= 100mA		0.94	1.2	V
Transition frequency	f_T	V_{CE}=10V, I_C= 50mA		150		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		25		pF

CLASSIFICATION OF $h_{FE(1)}$

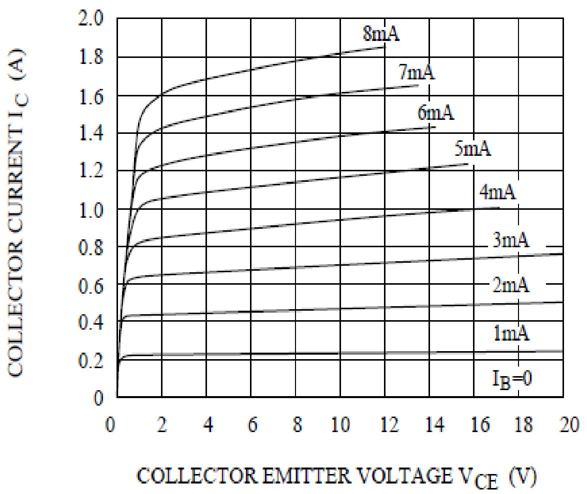
Rank	A	B	C
Range	100-200	140-280	200-400
MARKING	YA	YB	YC

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

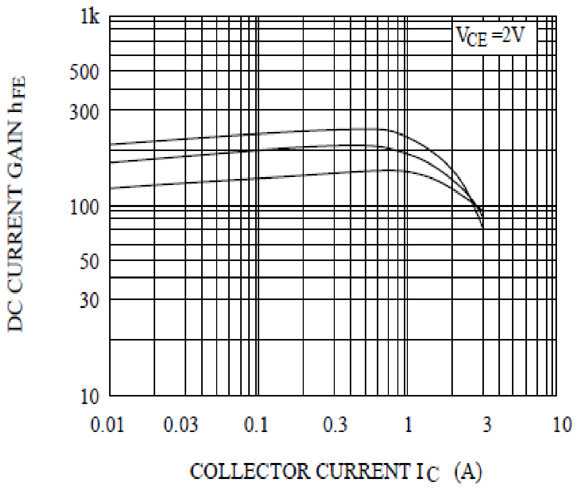




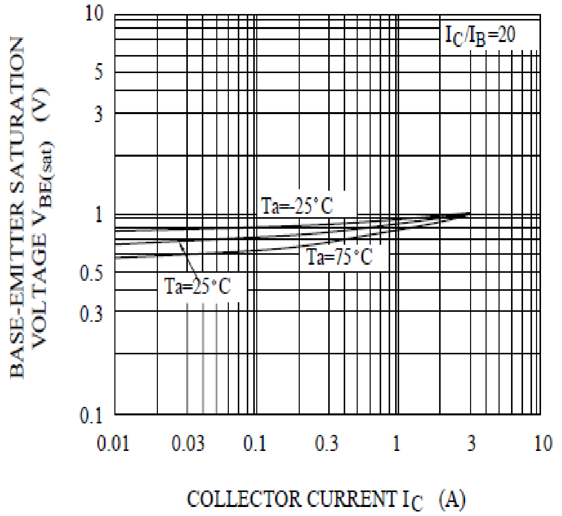
I_C - V_{CE}



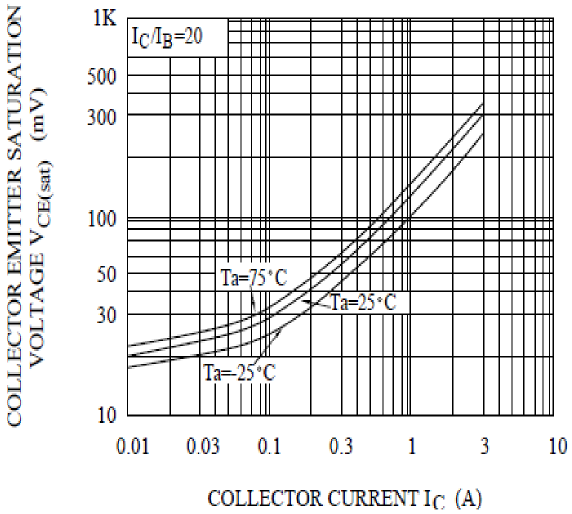
h_{FE} - I_C



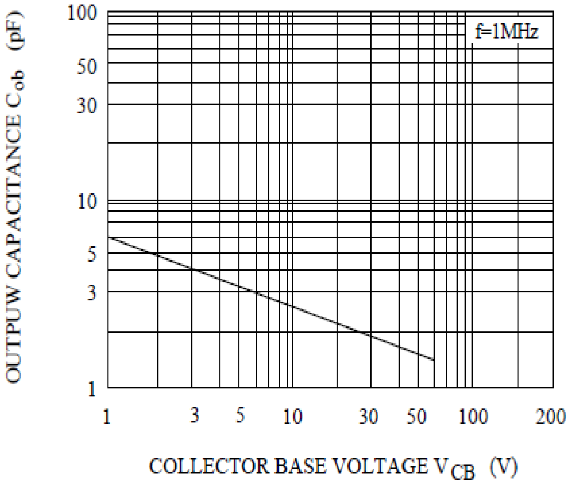
$V_{BE(sat)}$ - I_C



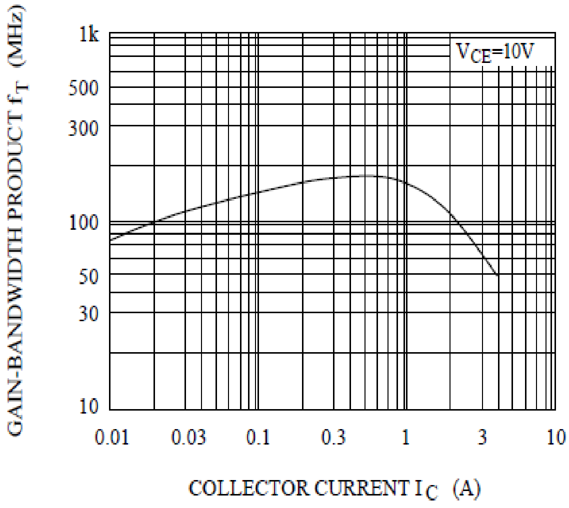
$V_{CE(sat)}$ - I_C

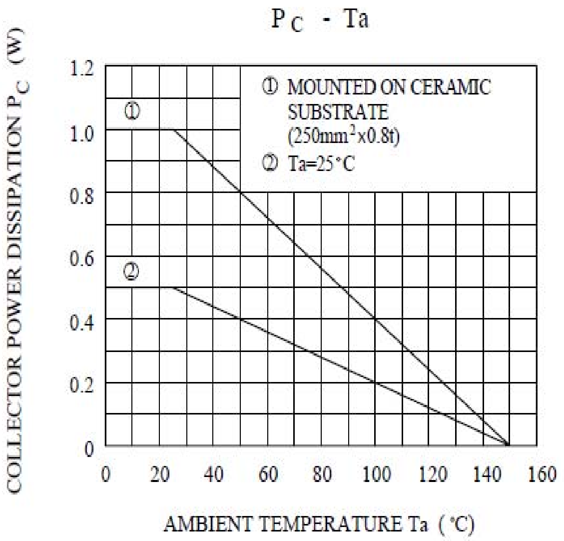


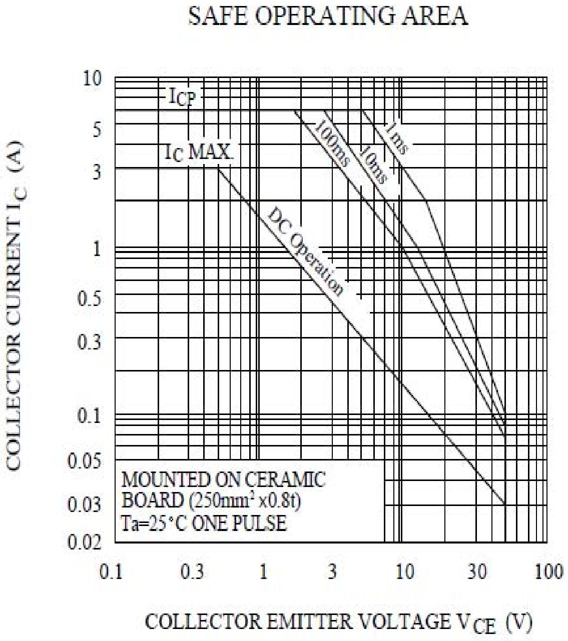
C_{ob} - V_{CB}



f_T - I_C

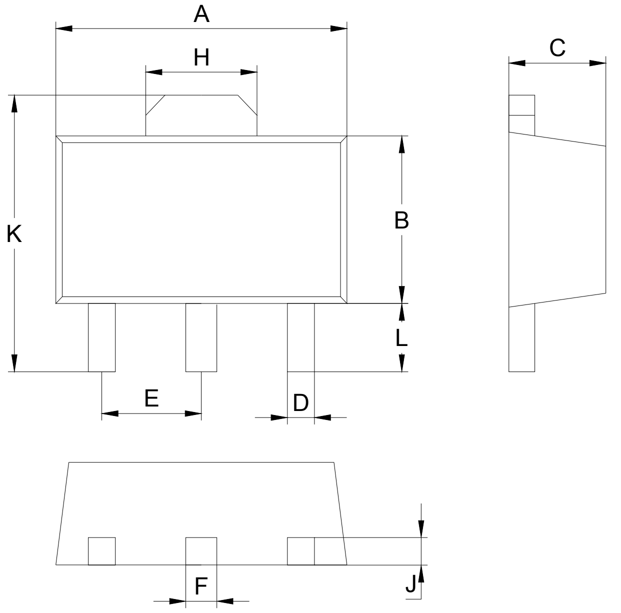






PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

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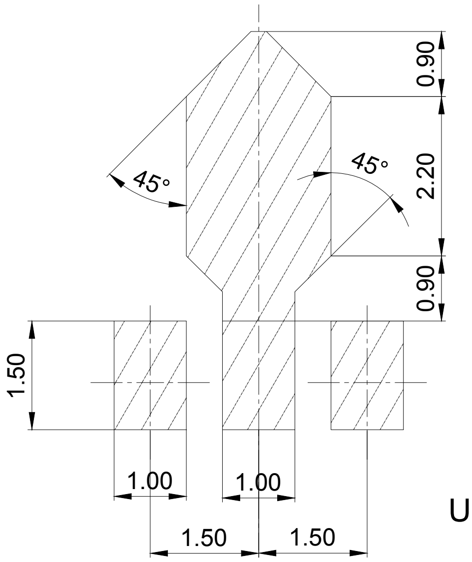
SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
KTD1624	SOT-89	1000/Tape&Reel