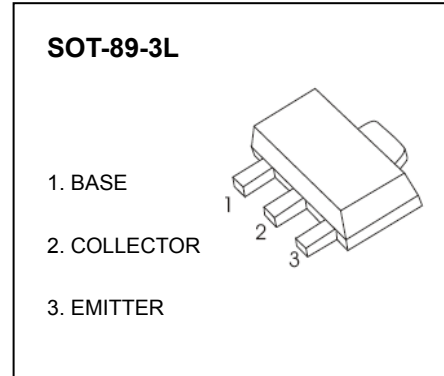


## NPN Epitaxial Planar Silicon Transistors

### FEATURES

- Fast switching speed.
- Low collector-to-emitter saturation voltage.
- Large current capacity and wide ASO.



### ORDERING INFORMATION

Type No.	Marking	Package Code
2SD1624□	DG	SOT-89

□: none is for Lead Free package;  
"G" is for Halogen Free package.

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current –DC –Pulse	3 6	A
$P_C$	Collector Dissipation	0.5 1.5(Note1)	W
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to+150	°C

#### Note

1. Mounted on ceramic board (250mm<sup>2</sup>×0.8mm)

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40V, I_E=0$			1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=2V, I_C=100mA$ $V_{CE}=2V, I_C=3A$	100 35		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A, I_B=100mA$		0.35	0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2A, I_B=100mA$		0.94	1.2	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=50mA,$		150		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10V, f=1.0MHz, I_E=0$		39		pF

**CLASSIFICATION OF  $h_{FE}$**

Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560



**CHINA BASE**  
INTERNATIONAL

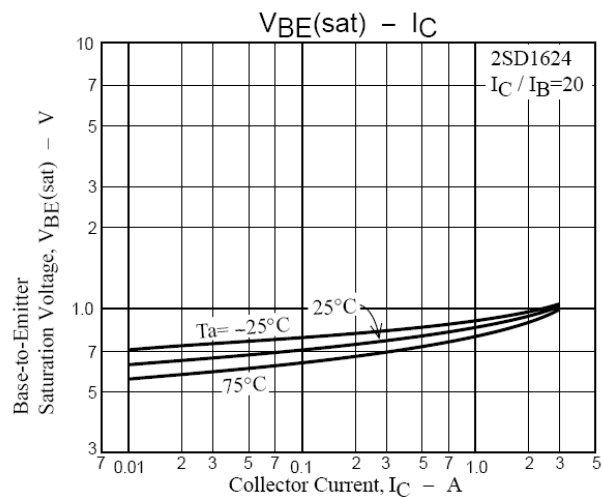
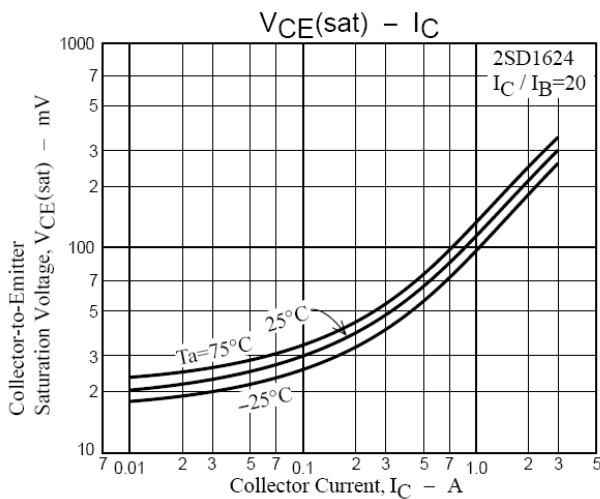
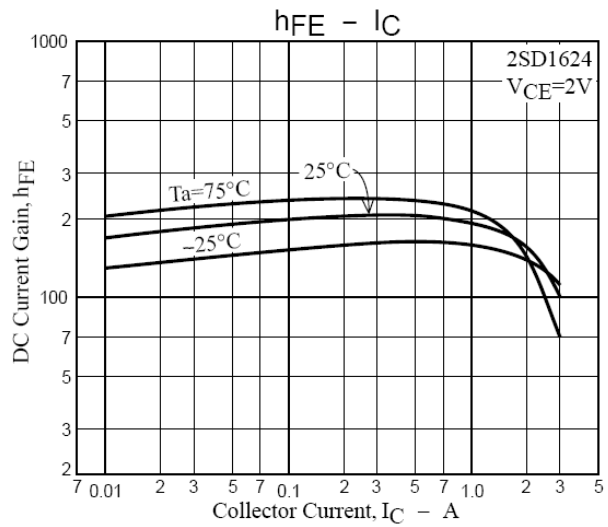
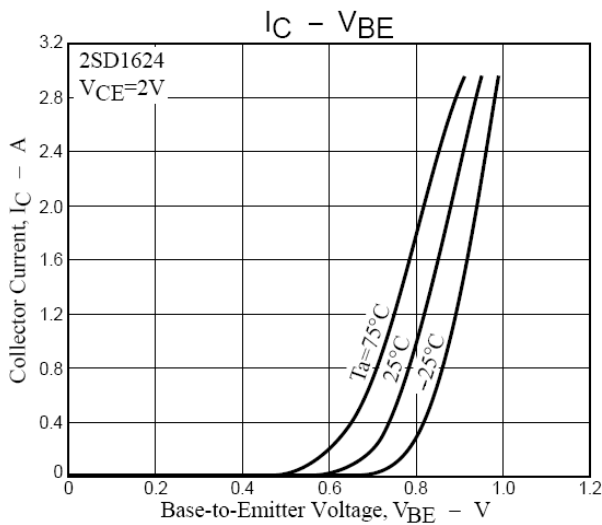
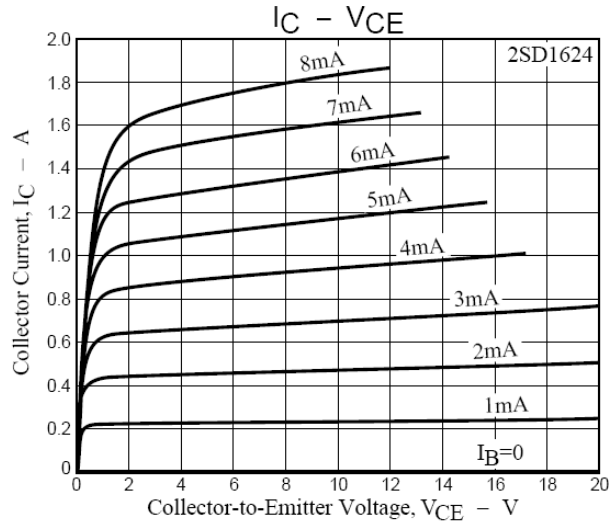
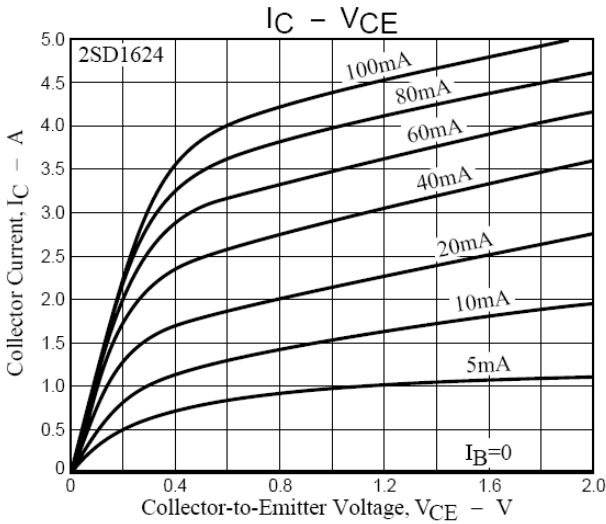
# SOT-89

## 2SD1624

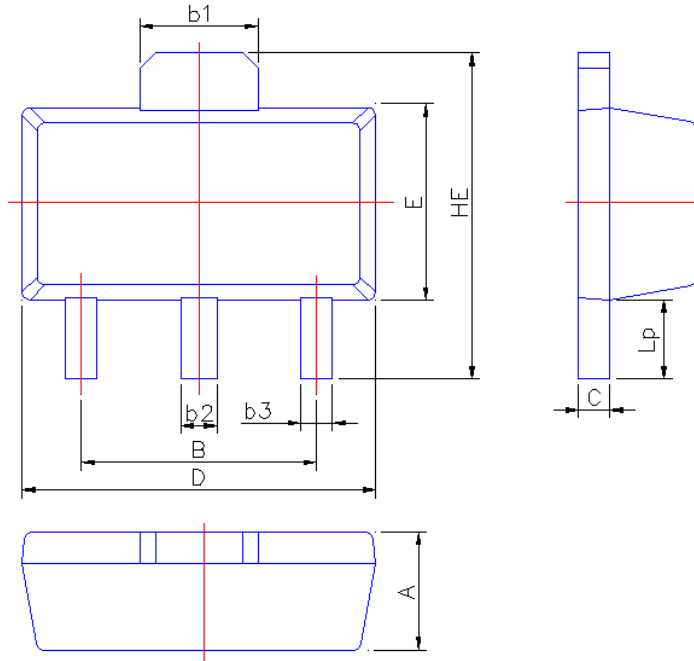


www.china-base.com.hk

### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



### SOT-89 PACKAGE OUTLINE



Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	2.95	3.05
b1	1.45	1.70
b2	0.45	0.56
b3	0.35	0.50
C	0.35	0.50
D	4.40	4.60
E	2.35	2.55
HE	3.90	4.40
Lp	0.90	1.10