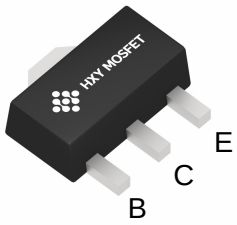
2SD1624

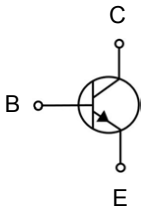
NPN Plastic-Encapsulate Transistors

Features

- Collector Current: I_C= 2A
- Power Dissipation of 500mW



SOT-89



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
2SD1624	SOT-89	DG	1000

Maximum Ratings (Ta=25℃ unless otherwise noted)

Symbl	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-Continuous	3	A
I_{CP}	Collector Current -Pulsed	6	A
P_C	Collector Power Dissipation	500	mW
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

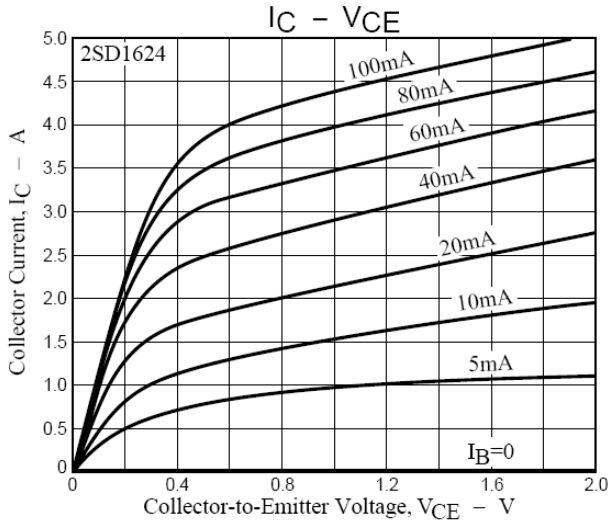
Electrical Characteristics (Ta=25℃ unless otherwise specified)

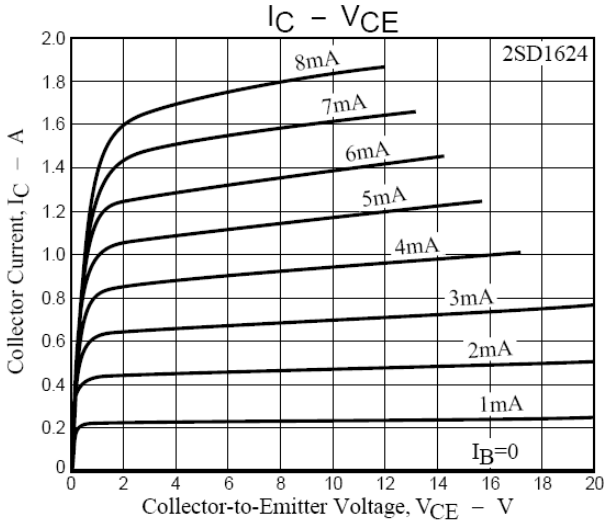
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=40V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=2V, I_C=100mA	100		560	
DC current gain	h_{FE}	V_{CE}=2V, I_C=3A	35		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A,I_B=100mA		0.35	0.7	V
Base-emitter saturation voltage	$V_{EB(sat)}$	I_C=2A,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		39		pF

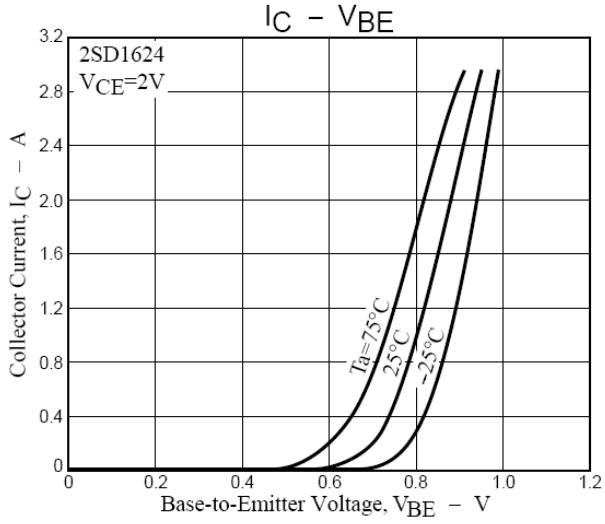
Classifiction Of h_{FE}

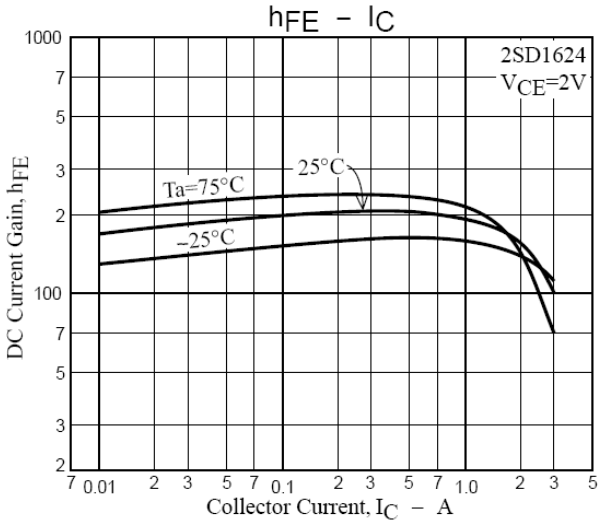
Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560

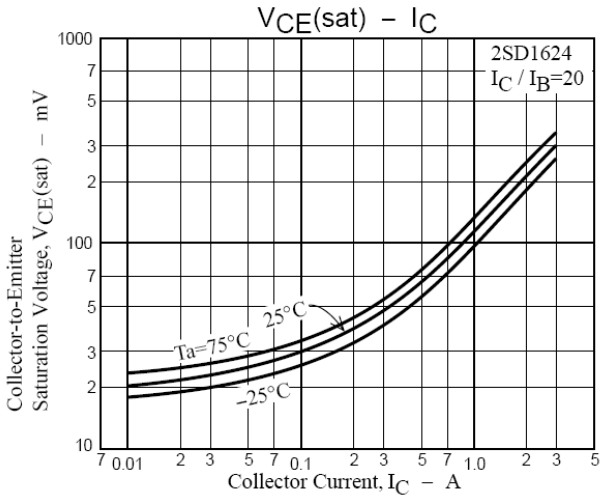
Typical Characteristics

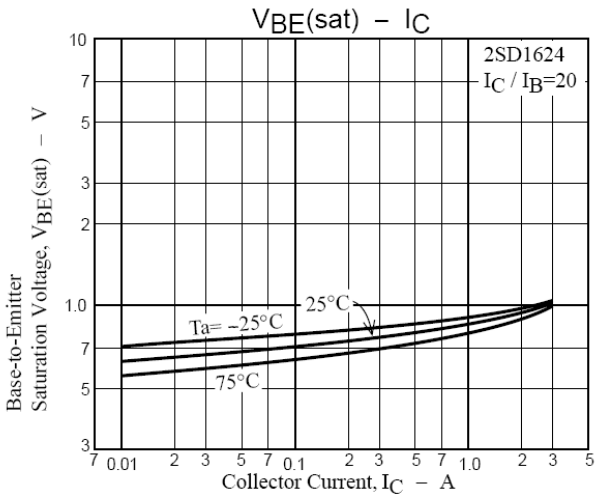




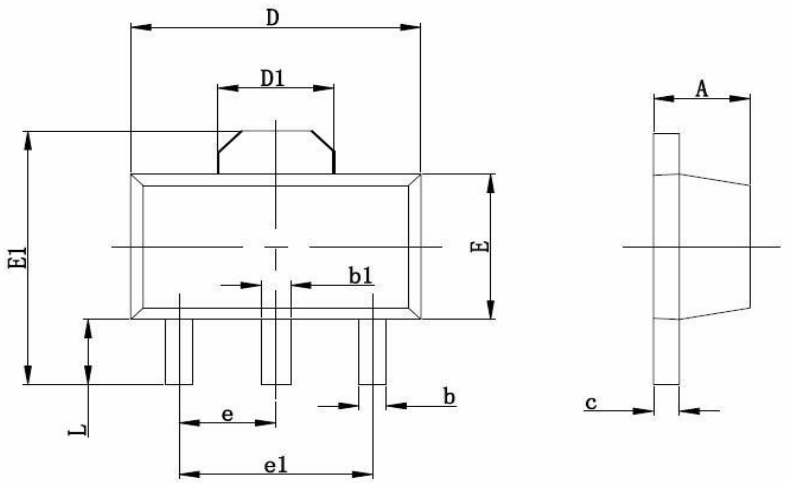








SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

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