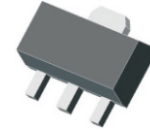


## 2SC4672-HF (NPN)

RoHS Device

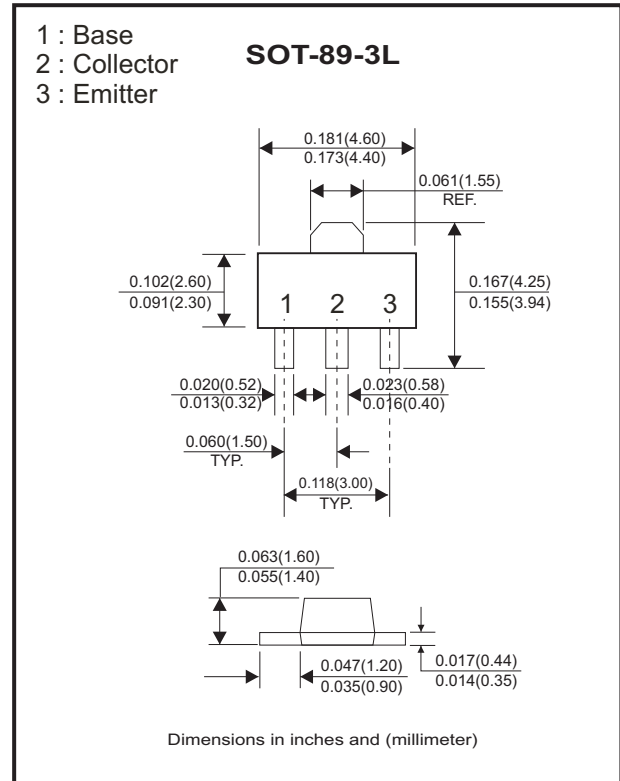
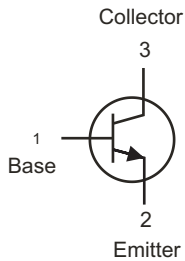
Halogen Free



### Features

- Low saturation voltage
- Excellent DC current gain characteristics
- Complements to 2SA1797-HF

### Circuit diagram



### Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Collector-Base voltage		V <sub>CB0</sub>	60	V
Collector-Emitter voltage		V <sub>CEO</sub>	50	V
Emitter-Base voltage		V <sub>EB0</sub>	6	V
Continuous collector current		I <sub>C</sub>	2	A
Collector power dissipation		P <sub>C</sub>	500	mW
Thermal resistance	Junction to ambient	R <sub>θJA</sub>	250	°C/W
Junction temperature		T <sub>J</sub>	150	°C
Storage temperature range		T <sub>stg</sub>	-55~+150	°C

## Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Collector-Base breakdown voltage	$I_C = 50\mu\text{A}, I_E = 0$	$V_{(BR)CBO}$	60			V
Collector-Emitter breakdown voltage	$I_C = 1\text{mA}, I_B = 0$	$V_{(BR)CEO}$	50			V
Emitter-Base breakdown voltage	$I_E = 50\mu\text{A}, I_C = 0$	$V_{(BR)EBO}$	6			V
Collector cut-off current	$V_{CB} = 60\text{V}, I_E = 0$	$I_{CBO}$			0.1	$\mu\text{A}$
Emitter cut-off current	$V_{EB} = 5\text{V}, I_C = 0$	$I_{EBO}$			0.1	$\mu\text{A}$
DC current gain	$V_{CE} = 2\text{V}, I_C = 500\text{mA}$	$h_{FE}$	120		270	
Collector-Emitter saturation voltage	$I_C = 1\text{A}, I_B = 50\text{mA}$	$V_{CE(sat)}$			0.35	V
Transition frequency	$V_{CE} = 2\text{V}, I_C = 0.5\text{A}, f = 100\text{MHz}$	$f_T$		210		MHz
Collector output capacitance	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	$C_{ob}$		25		pF

## RATING AND CHARACTERISTIC CURVES ( 2SC4672-HF)

Fig.1 - Static Characteristic

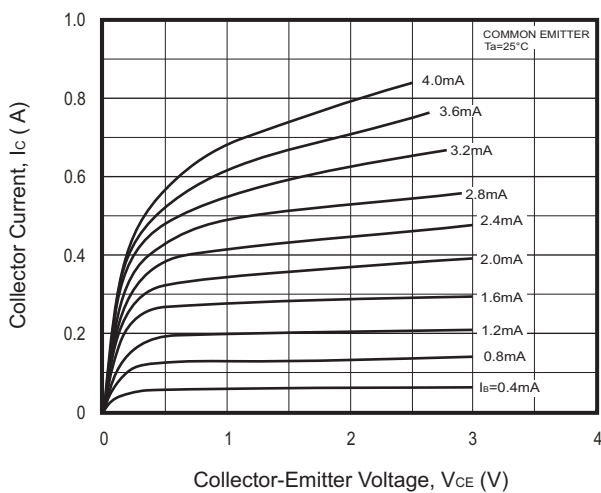
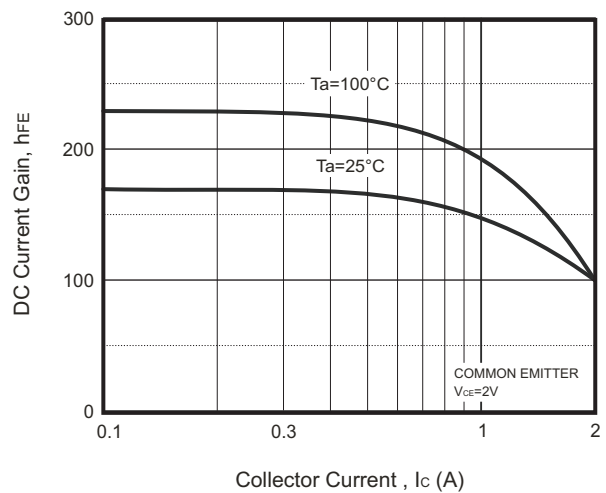
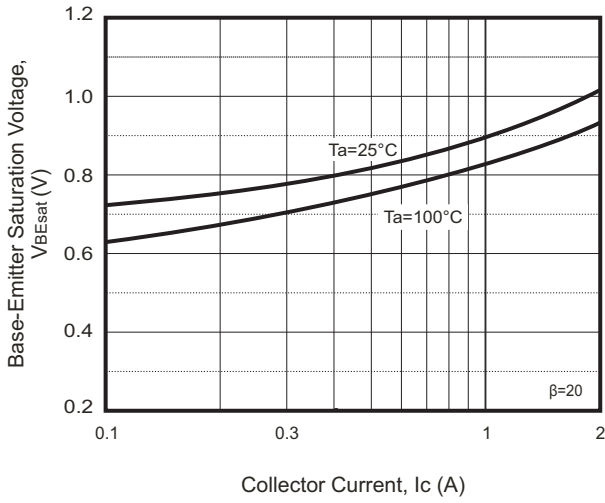


Fig.2 -  $h_{FE}-I_C$

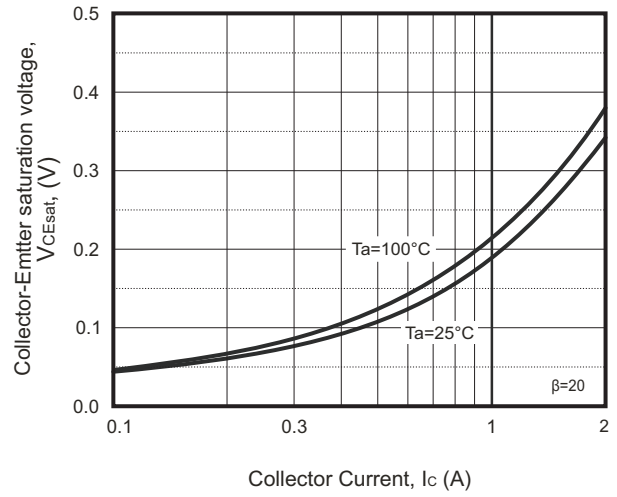


## RATING AND CHARACTERISTIC CURVES ( 2SC4672-HF )

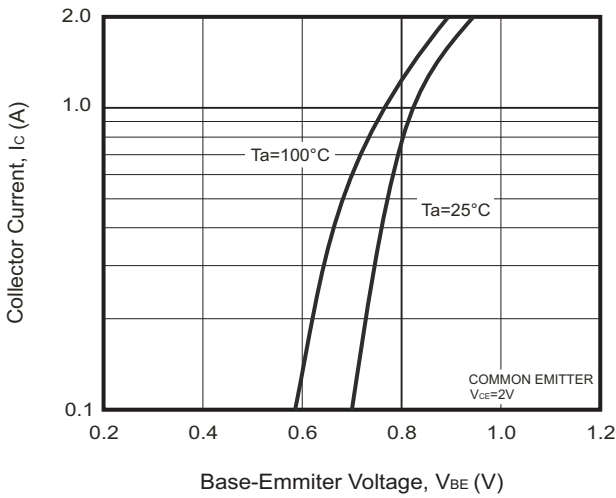
**Fig.3 -  $V_{BEsat} - I_c$**



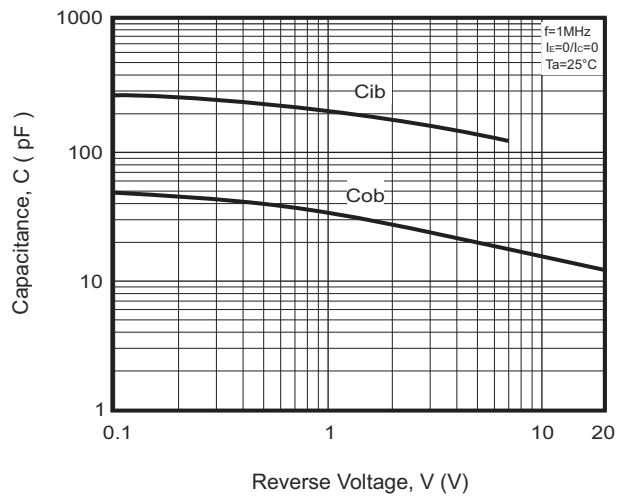
**Fig.4 -  $V_{CEsat} - I_c$**



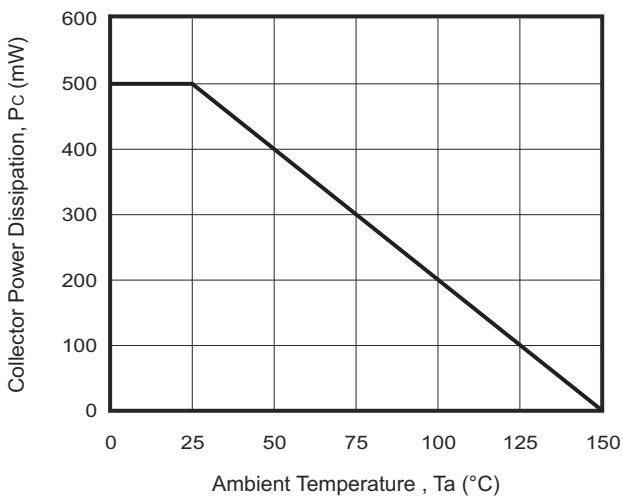
**Fig.5 -  $I_c - V_{BE}$**



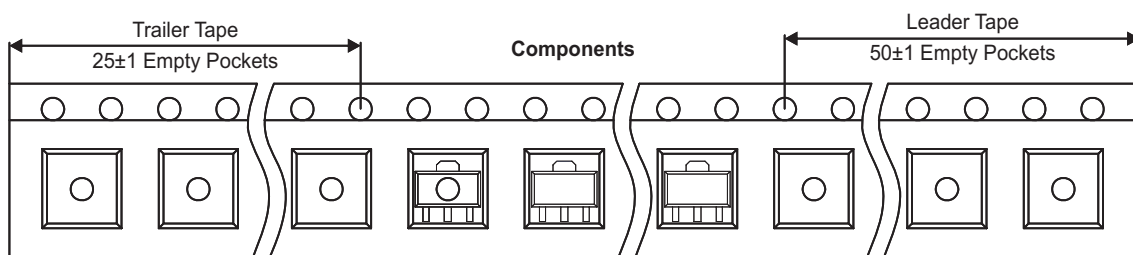
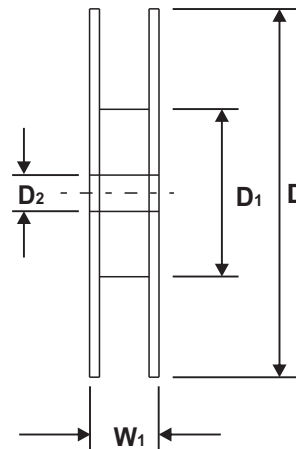
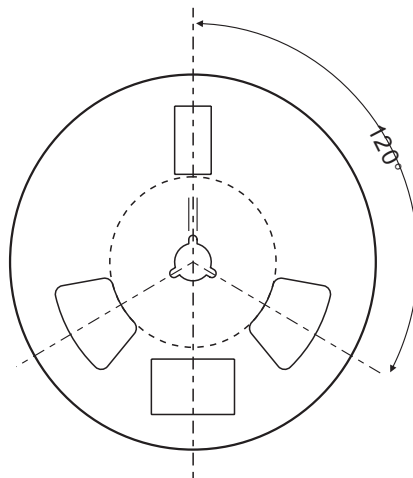
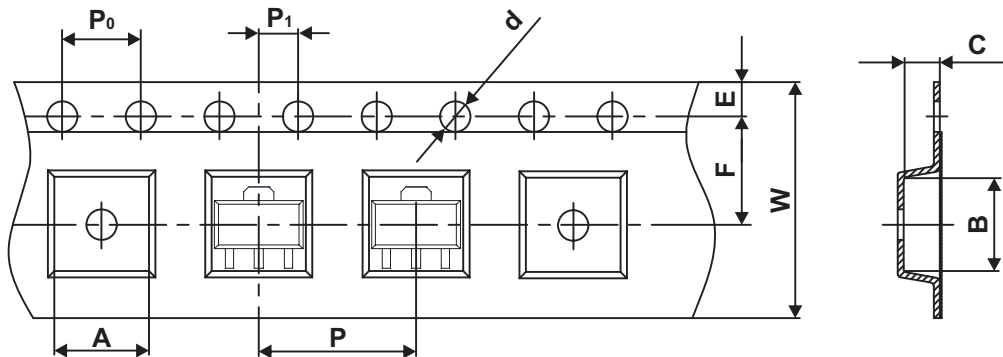
**Fig.6 -  $C_{ob}/C_{ib} - V_{CB}/V_{EB}$**



**Fig.7 -  $P_c - T_a$**



## Reel Taping Specification



SOT-89-3L	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	4.85 ± 0.10	4.45 ± 0.10	1.85 ± 0.10	1.50 + 0.10	180 ± 2.00	60.00 ± 1.00	R32.00 ± 1.00
	(inch)	0.191 ± 0.004	0.175 ± 0.004	0.073 ± 0.004	0.059 + 0.004	7.087 ± 0.079	2.362 ± 0.039	1.260 ± 0.039

SOT-89-3L	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	12.00 +0.30/-0.10	16.50 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 +0.012/-0.004	0.650 ± 0.039

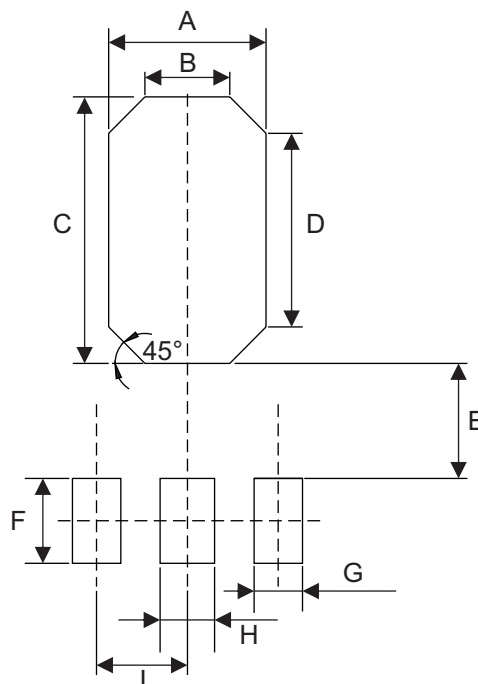
## Marking Code

Part Number	Marking Code
2SC4672-HF	DKQ



## Suggested PAD Layout

SIZE	SOT-89-3L	
	(mm)	(inch)
A	2.60	0.102
B	1.40	0.055
C	4.40	0.173
D	3.20	0.126
E	1.90	0.075
F	1.40	0.055
G	0.80	0.032
H	0.90	0.035
I	1.50	0.059



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-89-3L	1,000	7