

# Low Frequency Transistor (50V, 3A)

## 2SC4672

### ●Features

- 1) Low saturation voltage, typically  $V_{CE(sat)} = 0.1V$  at  $I_C/I_B = 1A/50mA$ .
- 2) Excellent DC current gain characteristics.
- 3) Complements the 2SA1797.

### ●Absolute maximum ratings ( $T_a=25^\circ C$ )

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CB0}$	60	V
Collector-emitter voltage	$V_{CE0}$	50	V
Emitter-base voltage	$V_{EB0}$	6	V
Collector current	$I_C$	3	A (DC)
		6	A (Pulse) *1
Collector power dissipation	$P_C$	0.5	W
		2 *2	
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

\*1 Single pulse,  $P_w=10ms$

\*2  $40 \times 40 \times 10.7mm$  Ceramic board

### ●Packaging specifications and $h_{FE}$

Type	2SC4672
Package	MPT3
$h_{FE}$	PQ
Marking	DK *
Code	T100
Basic ordering unit (pieces)	1000

\* Denotes  $h_{FE}$

$h_{FE}$  values are classified as follows:

Item	P	Q
$h_{FE}$	82 to 180	120 to 270

### ●Electrical characteristics ( $T_a=25^\circ C$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CB0}$	60	—	—	V	$I_C=50\mu A$
Collector-emitter breakdown voltage	$BV_{CE0}$	50	—	—	V	$I_C=1mA$
Emitter-base breakdown voltage	$BV_{EB0}$	6	—	—	V	$I_E=50\mu A$
Collector cutoff current	$I_{CB0}$	—	—	0.1	$\mu A$	$V_{CB}=60V$
Emitter cutoff current	$I_{EB0}$	—	—	0.1	$\mu A$	$V_{EB}=5V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	0.13	0.35	V	$I_C/I_B=1A/50mA$ *
DC current transfer ratio	$h_{FE1}$	82	—	270	—	$V_{CE}=2V, I_C=0.5A$ *
	$h_{FE2}$	45	—	—	—	$V_{CE}=2V, I_C=1.5A$ *
Transition frequency	$f_T$	—	210	—	MHz	$V_{CE}=2V, I_E=-0.5A, f=100MHz$
Output capacitance	$C_{ob}$	—	25	—	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

\*Measured using pulse current.

Transistors

●Electrical characteristics curves

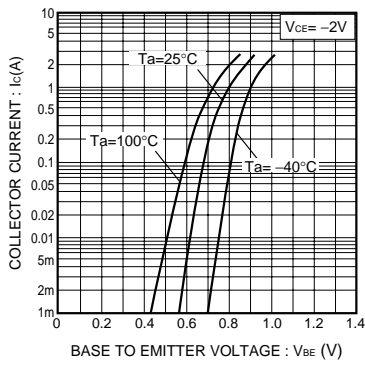


Fig.1 Grounded emitter propagation characteristics

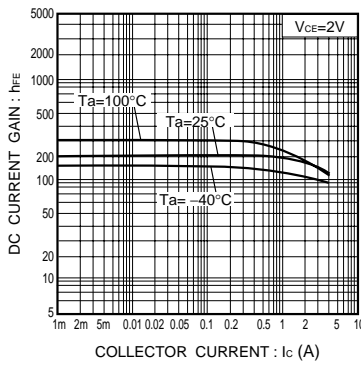


Fig.2 DC current gain vs. collector current

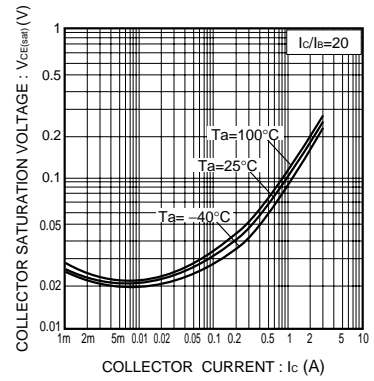


Fig.3 Collector-emitter saturation voltage vs. collector current

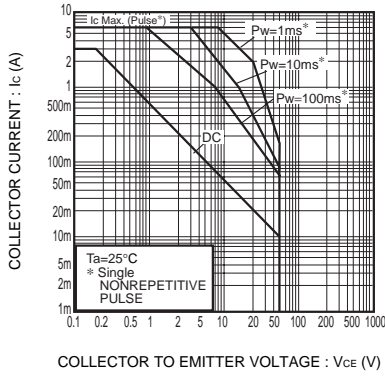


Fig.4 Safe Operating area

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