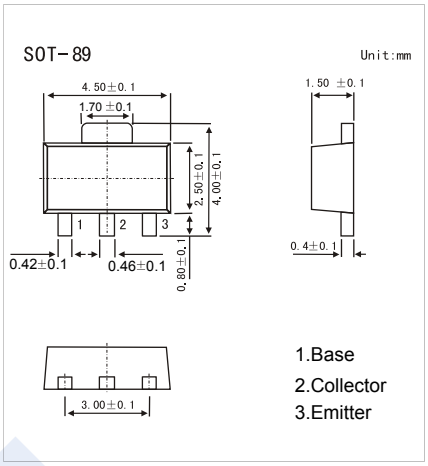
NPN Transistors

2SC4272



■ Features

- Collector Current Capability I_C=1A
- Collector Emitter Voltage V_{CEO}=45V
- Small Size Making It Easy To Provide High-Density,
  To Provide High-Density,
- 27MHz CB Transceiver Driver Applications

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	75	V
Collector - Emitter Voltage	V_{CEO}	45	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse	I_{CP}	1.5	
Collector Power Dissipation	P_C	1.3	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0	75			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B= 0	45			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 40 V , I_E= 0			1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500 mA, I_B=50mA			0.6	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C= 500 mA, I_B= 50mA			1.2	
DC current gain	h_{FE}	V_{CE}= 5V, I_C= 500mA	60		320	
Output Power	P_o	V_{CC} = 12V,f=27MHz , Pin=35mW	1			W
Collector Efficiency	nC	See Test Circuit.	60			%
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz		15		pF
Transition frequency	f_T	V_{CE}= 10V, I_C= 50mA		250		MHz

■ Classification of h_{fe}

Type	2SC4272-D	2SC4272-E	2SC4272-F
Range	60-120	100-200	160-320
Marking	CHD*	CHE*	CHF*

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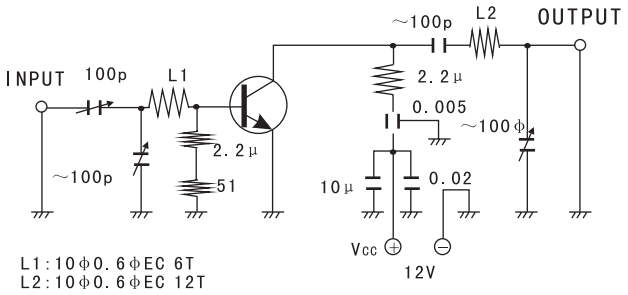
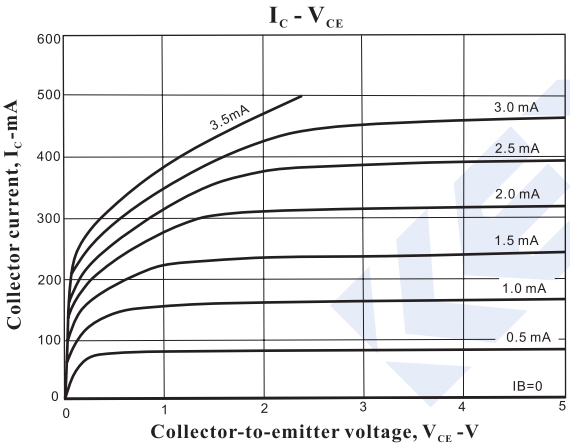
■ Test Circuit

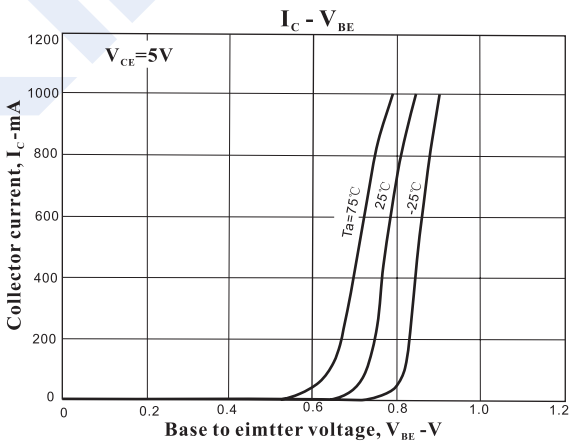


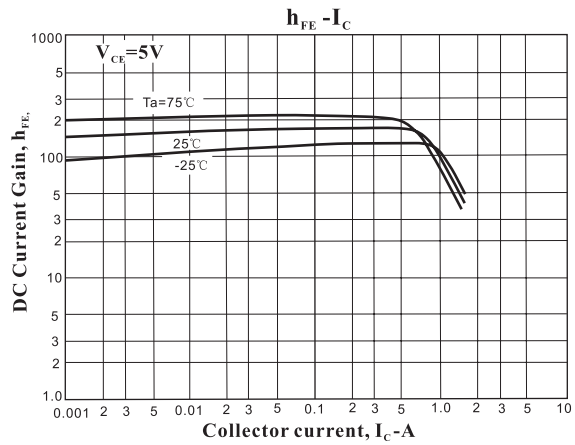
L1:10Φ0.6ΦEC 6T
L2:10Φ0.6ΦEC 12T

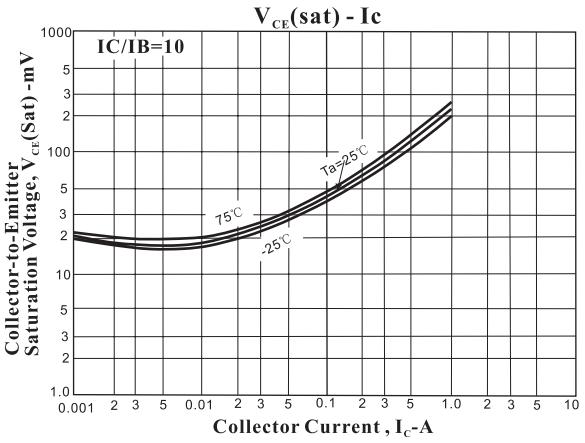
Unit(Resistance:Ω,Capacitance:F)

■ Typical Characterisitics









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■ Typical Characterisitics