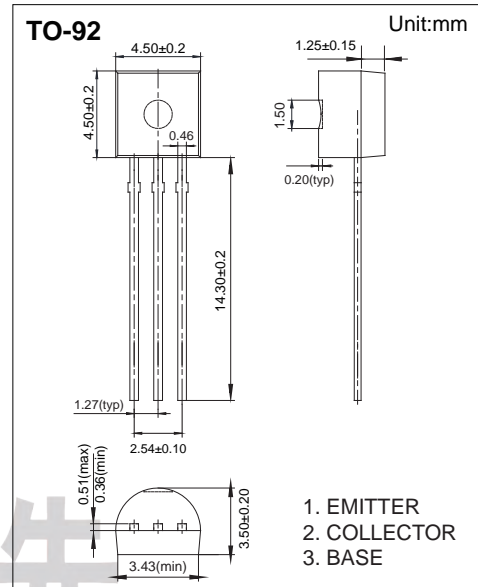


NPN Transistors MJE13001

■ Features

- Collector current: $I_c=1A$
- Collector base voltage: $V_{CBO}=600V$



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	600	V
Collector - Emitter Voltage	V_{CEO}	400	
Emitter - Base Voltage	V_{EBO}	7	
Collector Current - Continuous	I_c	200	mA
Collector Power Dissipation	P_c	750	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	

Transistor

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	VCBO	Ic= 100 μA, IE=0	600			V
Collector- emitter breakdown voltage	VCEO	Ic= 1 mA, IB=0	400			
Emitter - base breakdown voltage	VEBO	IE= 100 μA, Ic=0	7			
Base-emitter voltage	VBE	IE= 100 μA			1.1	
Collector cut-off current	ICBO	VCE= 600 V, IE=0			0.1	μA
Collector cut-off current	ICEO	VCE= 400 V, IB=0			0.2	
Emitter cut-off current	IEBO	VEB= 7V, Ic=0			0.1	
Collector-emitter saturation voltage	VCE(sat)	Ic=50 mA, IB= 10mA			0.5	V
Base - emitter saturation voltage	VBE(sat)	Ic=50 mA, IB= 10mA			1.2	
DC current gain	hFE(1)	VCE= 20V, Ic= 20mA	10		70	
	hFE(2)	VCE= 10V, Ic= 0.25mA	5			
Storage time	ts	Ic=50mA, IB1=-IB2=5mA, VCC=45V			1.5	μs
Fall time	tf				0.3	
Transition frequency	fT	VCE= 20V, Ic=20mA, f=1MHz	8			MHz

■ Classification of hFE(1)

Rank	A	B	C	D	E	F	G	H	I	J	K	L
Range	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70

Transistor

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Typical Characteristics

