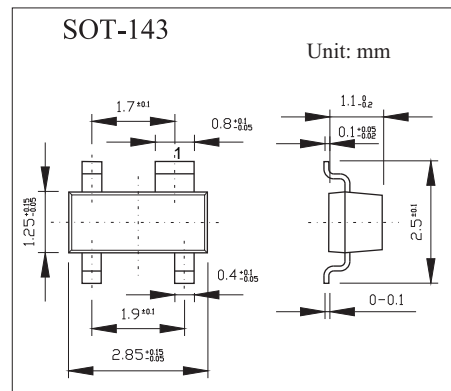
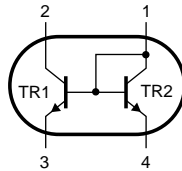


BCV61

■ Features

- High current gain
- Low collector-emitter saturation voltage



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	30	V
Collector-emitter voltage	V_{CE0}	30	V
Emitter-base voltage	V_{EB0}	6	V
Collector current	I_c	100	mA
Power dissipation	P_D	250	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operating and Storage and Temperature Range	T_j, T_{STG}	-55 to +150	$^\circ\text{C}$

BCV61

■ Electrical Characteristics Ta = 25°C

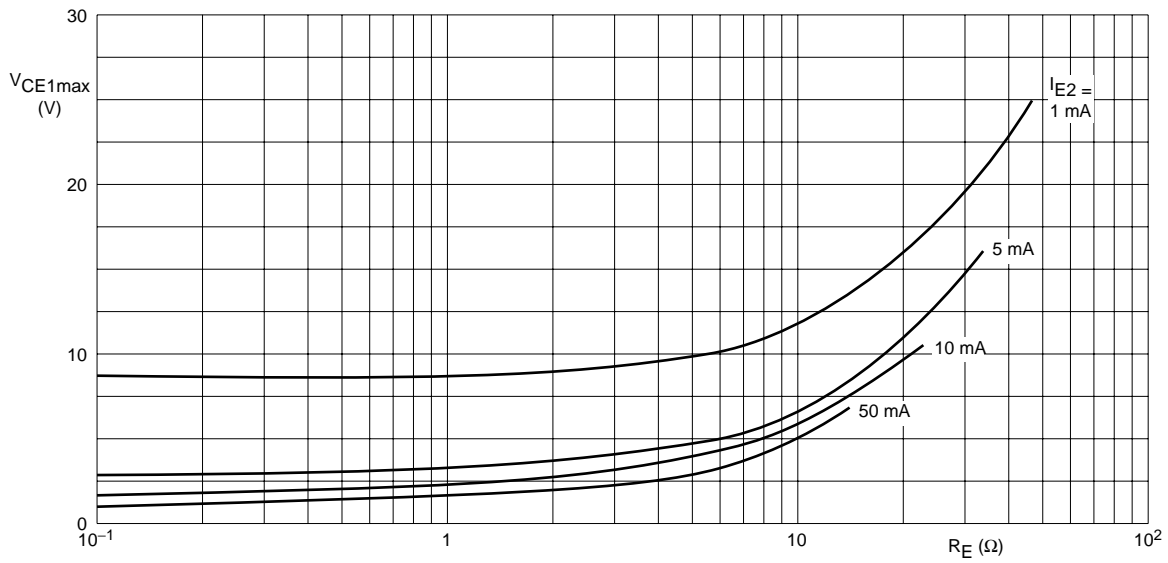
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Transistor TR1						
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = 10 μA, I _E = 0	30			V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = 10 mA, I _B = 0	30			V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _C = 10 μA, I _C = 0	6			V
Collector cutoff current	I _{CBO}	V _{CB} =30V, I _E =0			15	nA
Emitter cutoff current	I _{EBO}	V _{EB} =5V, I _C =0			100	nA
DC current gain	h _{FE}	V _{CE} =5V, I _C = 100μA	100			
		V _{CE} =5V, I _C = 2mA	110		800	
collector-emitter saturation voltage *	V _{CE(sat)}	I _C = 10 mA; I _B = 0.5 mA			0.25	V
		I _C = 100 mA; I _B = 5 mA			0.6	V
base-emitter saturation voltage *	V _{BE(sat)}	I _C = 10 mA; I _B = 0.5 mA		0.7		V
		I _C = 100 mA; I _B = 5 mA		0.9		V
Collector capacitance	C _c	I _E = i _e = 0; V _{CB} = 10 V; f = 1 MHz		2.5		pF
Transition frequency	f _T	I _C = 20 mA; V _{CE} = 20 V; f = 100 MHz	100			MHz
Noise figure	F	I _C = 200 μA; V _{CE} = 5 V; R _s = 2kΩ; f = 1 kHz; B = 200 Hz			10	dB
Transistor TR2						
Base-emitter forward voltage	V _{EBS}	V _{CB} = 0; I _E = -250 mA			-1.8	V
		V _{CB} = 0; I _E = -10μA	-400			mV
DC current gain	h _{FE}	I _C = 2 mA; V _{CE} = 5 V				
BCV61A			110		220	
BCV61B			200		450	
BCV61C			420		800	

* pulse test: Pulse Width ≤300μs, Duty Cycle ≤ 2.0%.

■ Marking

TYPE	BCV61	BCV61A	BCV61B	BCV61C
Marking	1MP	1JP	1KP	1LP

■ Typical Characteristics



$\frac{I_{C1}}{I_{E2}} = 1.3$ (see Fig.3).

Fig.1 Maximum collector-emitter voltage as a function of emitter resistance.