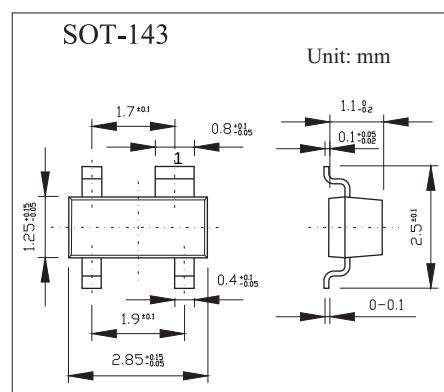
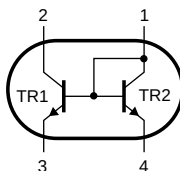


NPN general purpose double transistor BCV61

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_{CEO}	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	$^\circ\text{C}$

BCV61Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Transistor TR1						
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\ \mu\text{A}$, $I_E = 0$	30			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\ \text{mA}$, $I_B = 0$	30			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_C = 10\ \mu\text{A}$, $I_C = 0$	6			V
Collector cutoff current	I_{CBO}	$V_{CB}=30\text{V}$, $I_E=0$			15	nA
Emitter cutoff current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$			100	nA
DC current gain	h_{FE}	$V_{CE}=5\text{V}$, $I_C = 100\mu\text{A}$	100			
		$V_{CE}=5\text{V}$, $I_C = 2\text{mA}$	110		800	
collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 10\ \text{mA}$; $I_B = 0.5\ \text{mA}$			0.25	V
		$I_C = 100\ \text{mA}$; $I_B = 5\ \text{mA}$			0.6	V
base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 10\ \text{mA}$; $I_B = 0.5\ \text{mA}$		0.7		V
		$I_C = 100\ \text{mA}$; $I_B = 5\ \text{mA}$		0.9		V
Collector capacitance	C_c	$I_E = I_C = 0$; $V_{CB} = 10\ \text{V}$; $f = 1\ \text{MHz}$		2.5		pF
Transition frequency	f_T	$I_C = 20\ \text{mA}$; $V_{CE} = 20\ \text{V}$; $f = 100\ \text{MHz}$	100			MHz
Noise figure	F	$I_C = 200\ \mu\text{A}$; $V_{CE} = 5\ \text{V}$; $R_s = 2\text{k}\Omega$; $f = 1\ \text{kHz}$; $B = 200\ \text{Hz}$			10	dB
Transistor TR2						
Base-emitter forward voltage	V_{EBS}	$V_{CB} = 0$; $I_E = -250\ \text{mA}$			-1.8	V
		$V_{CB} = 0$; $I_E = -10\mu\text{A}$	-400			mV
DC current gain	h_{FE}	$I_C = 2\ \text{mA}$; $V_{CE} = 5\ \text{V}$				
BCV61A			110		220	
BCV61B			200		450	
BCV61C			420		800	

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

Marking

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

BCV61

Typical Characteristics

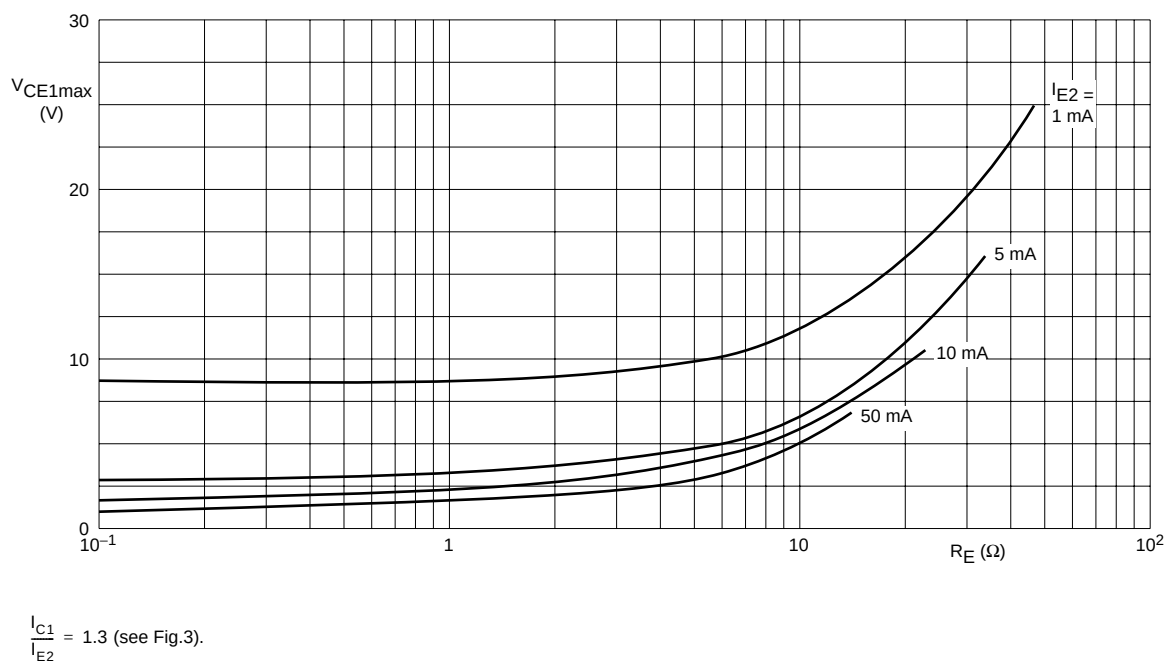


Fig.1 Maximum collector-emitter voltage as a function of emitter resistance.