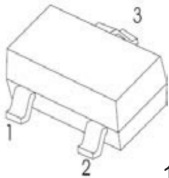
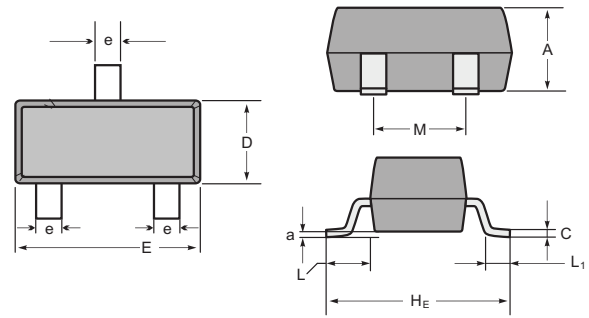
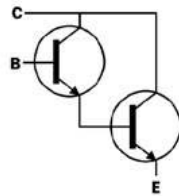


FEATURES

- High Collector Current
- High Current Gain



1.BASE
2.EMITTER
3.COLLECTOR



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	80	V
V _{CEO}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	10	V
I _C	Collector Current	500	mA
P _C	Collector Power Dissipation	300	mW
R _{ΘJA}	Thermal Resistance From Junction To Ambient	416	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

BCV47

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}$, $I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$, $I_C=0$	10			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}$, $I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$, $I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1\text{V}$, $I_C=100\mu\text{A}$	2000			
	$h_{FE(2)}$	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$	4000			
	$h_{FE(3)}$	$V_{CE}=5\text{V}$, $I_C=100\text{mA}$	10000			
	$h_{FE(4)}$	$V_{CE}=5\text{V}$, $I_C=0.5\text{A}$	2000			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=0.1\text{mA}$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100\text{mA}$, $I_B=0.1\text{mA}$			1.5	V
Transition frequency	f_T	$V_{CE}=5\text{V}$, $I_C=50\text{mA}$, $f=100\text{MHz}$		170		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		3.5		pF

RATING AND CHARACTERISTIC CURVES (BCV47)

