

Marking code: BCV47

Silicon NPN SMD triode

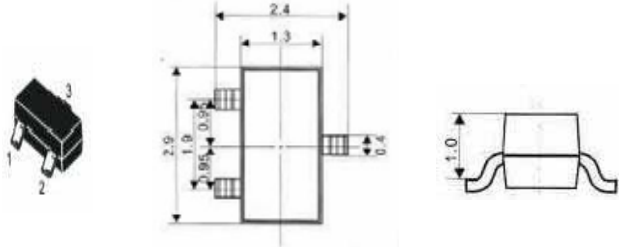
1: base 2: emitter 3: collector

For general AF applications

High collector current High current gain

Complementary types:(PNP) BCV46

SOT-23 Outline example



Maximum ratings( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	$V_{CB0}$	80	V
Collector-Emitter Breakdown Voltage	$V_{CE0}$	60	V
Emitter-Base Breakdown Voltage	$V_{EB0}$	10	V
Collector Current	$I_C$	500	mA
Base current	$I_B$	100	mA
Total power dissipation $T_{amb} \leq 25^{\circ}\text{C}$	$P_{tot}$	250	mW
Junction Temperature	$T_J$	-65~150	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-65~150	$^{\circ}\text{C}$

Electrical Characteristics ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{CB0}$	$I_C=100\mu\text{A}$ $I_E=0$	80		V
Collector-Emitter Breakdown Voltage	$V_{CE0}$	$I_C=10\text{mA}$ $I_B=0$	60		V
Emitter-Base Breakdown Voltage	$V_{EB0}$	$I_E=10\mu\text{A}$ $I_C=0$	10		V
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=60\text{V}$ $I_E=0$		100	nA
Emitter Cutoff Current	$I_{EB0}$	$V_{CE}=10\text{V}$ $I_B=0$		100	nA
DC Current Gain	HFE	$V_{CE}=5\text{V}$ $I_C=1\text{mA}$	2000		
		$V_{CE}=5\text{V}$ $I_C=10\text{mA}$	4000		
		$V_{CE}=5\text{V}$ $I_C=100\text{mA}$	10000		
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	$f_T$	$V_{CE}=5\text{V}$ $I_C=50\text{mA}$ $f=100\text{MHz}$	100		MHz

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