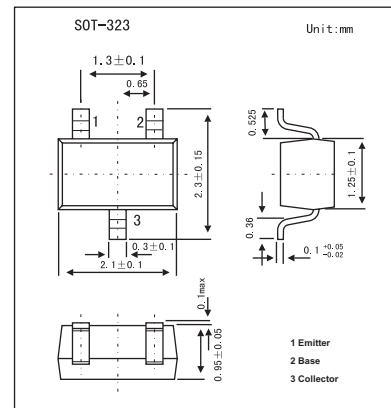


General Purpose Transistor

BC817W

■ Features

- High current.
- Low voltage.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	50	V
Collector-emitter voltage ($I_c = 10\text{ mA}$)	V_{CE0}	45	V
Emitter-base voltage	V_{EB0}	5	V
Collector current (DC)	I_c	500	mA
Peak collector current	I_{CM}	1	A
Peak base current	I_{BM}	200	mA
Total power dissipation	P_{tot}	200	mW
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	R_{amb}	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient	$R_{th\ j-a}$	625	K/W

BC817W

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	IE = 0 A; VCB = 20 V			100	nA
	ICBO	IE = 0 A; VCB = 20 V; Tj = 150 °C			5	μA
Emitter cutoff current	IEBO	Ic = 0 A; VEB = 5 V			100	nA
DC current gain	BC817W	Ic = 100 mA; VCE = 1 V *	100		600	
	BC817-16W		100		250	
	BC817-25W		160		400	
	BC817-40W		250		600	
Collector-emitter saturation voltage	VCE(sat)	Ic = 500 mA; Ib = 50 mA			700	mV
Base-emitter voltage	VBE	Ic = 500 mA; VCE = 1 V			1.2	V
Collector capacitance	Cc	IE = ie = 0 A; VCB = 10 V; f = 1 MHz		3		pF
Transition frequency	fT	Ic = 10 mA; VCE = 5 V; f = 100 MHz	100			MHz

* Pulse test: t ≤ 300μs, D ≤ 2%.

■ hFE Classification

TYPE	BC817W	BC817-16W	BC817-25W	BC817-40W
Marking	6D	6A	6B	6C