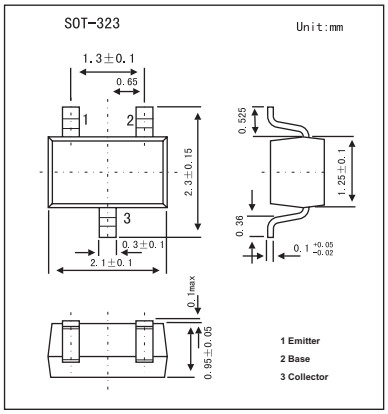
General Purpose Transistor

BC817W



■ Features

- High current.
- Low voltage.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage (I_C = 10 mA)	V_{CEO}	45	V
Emitter-base voltage	V_{EBO}	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	℃
Junction temperature	T_j	150	℃
Operating ambient temperature	R_{amb}	-65 to +150	℃
Thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$	625	K/W

BC817W

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current		I_{CBO}	I_E = 0 A; V_{CB} = 20 V			100	nA
		I_{CBO}	I_E = 0 A; V_{CB} = 20 V;T_j = 150 ℃			5	μA
Emitter cutoff current		I_{EBO}	I_C = 0 A; V_{EB} = 5 V			100	nA
DC current gain	BC817W	h_{FE}	I_C = 100 mA; V_{CE} = 1 V *	100		600	
	BC817-16W			100		250	
	BC817-25W			160		400	
	BC817-40W			250		600	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C = 500 mA; I_B = 50 mA			700	mV
Base-emitter voltage		V_{BE}	I_C = 500 mA; V_{CE} = 1 V			1.2	V
Collector capacitance		C_C	I_E = ie = 0 A; V_{CB} = 10 V;f = 1 MHz		3		pF
Transition frequency		f_T	I_C = 10 mA; V_{CE} = 5 V;f = 100 MHz	100			MHz

* Pulse test: t ⩽ 300μs, D ⩽ 2%.

■ h_{FE} Classification

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