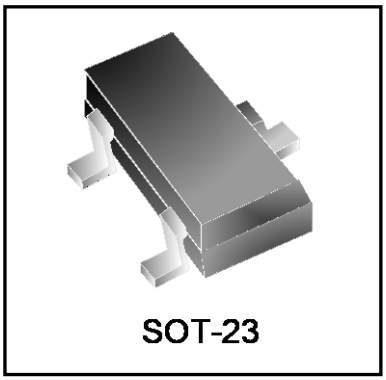
WT817

NPN Silicon Transistor



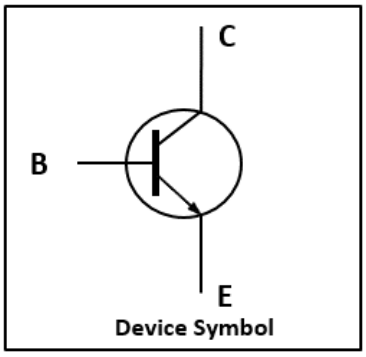
Features

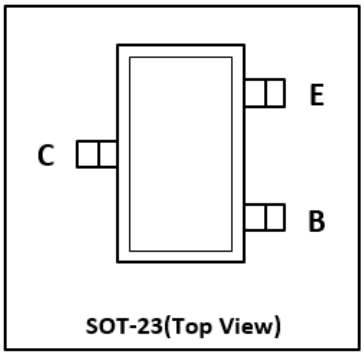
- High Collector Current
- High Current Gain
- Complementary Types: WT807 (PNP)

Mechanical Characteristics

- SOT-23 Package
- Marking : Making Code
- RoHS Compliant

Schematic & PIN Configuration





Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	45	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Peak Collector Current	I_{CM}	1	A
Peak Base Current	I_{BM}	200	mA
Collector Power Dissipation [1]	P_C	250	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C
Thermal Resistance from Junction-to-Ambient[1]	$R_{\theta JA}$	500	K/W

Electrical Characteristics (T_{amb}=25°C unless otherwise noted)

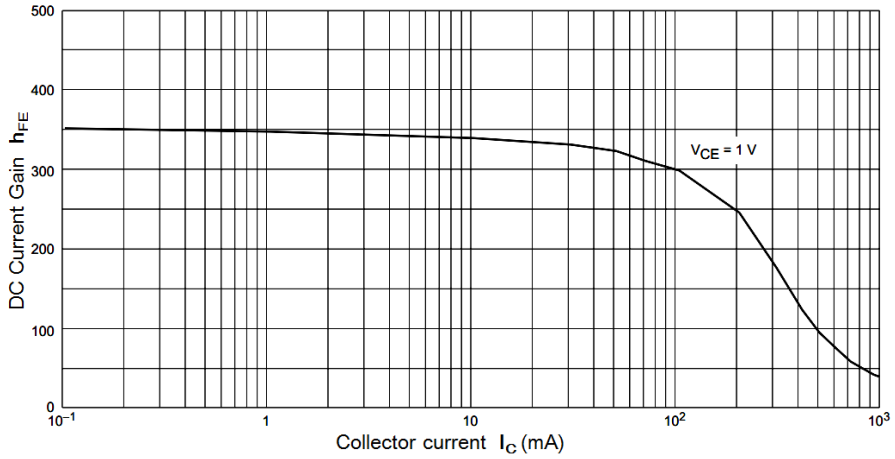
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 10μA, I_E = 0	50	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B = 0	45	-	-	V
Collector Cut-off Current	I_{CBO}	V_{CB} = 45V, I_E = 0	-	-	100	nA
		V_{CB} = 20V, I_E = 0, T_j = 150 °C			5	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	-	100	nA
DC Current Gain[2]	$h_{FE(1)}$	V_{CE} = 1V, I_C = 100mA	160	-	400	-
	$h_{FE(2)}$	V_{CE} = 1V, I_C = 500mA	40	-	-	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 500mA, I_B = 50mA	-	-	0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 500mA, I_B = 50mA	-	-	1.2	V
Base-Emitter Voltage[3]	V_{BE}	V_{CE} = 1V, I_C = 500mA	-	-	1.2	V
Collector Capacitance	C_C	I_E = I_e =0; V_{CB} =10 V; f = 1MHz	-	5	-	pF
Transition Frequency	f_T	V_{CE}=5V, I_C=10mA, f=100MHz	100	-	-	MHz

Notes:

1. Transistor mounted on an FR4 printed-circuit board.
2. Pulse test: tp ≤ 300 μs; δ ≤ 0.02.
3. V_{BE} decreases by approx. 2mV/K with increasing temperature.

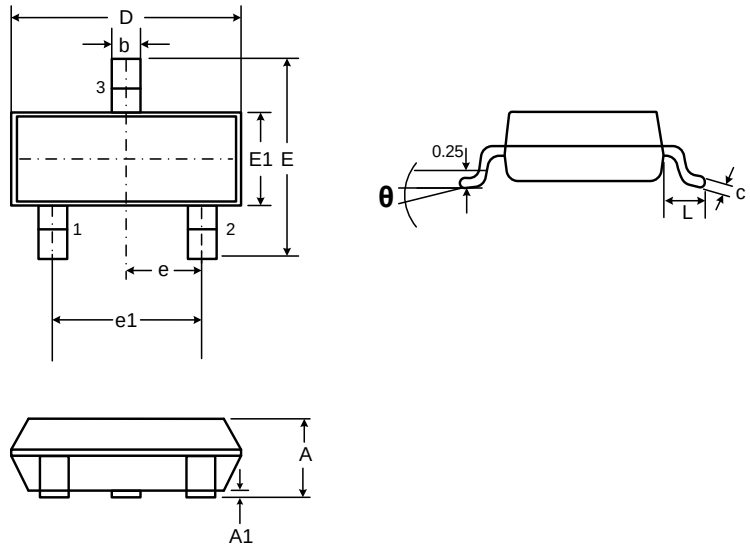
Typical Characteristics

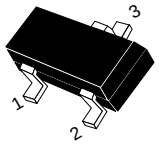
Figure 1. h_{FE} vs. I_C



Outline Drawing – SOT-23

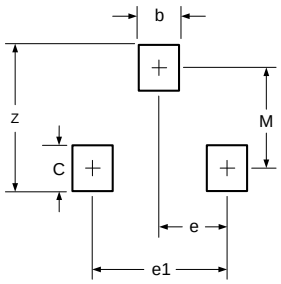
PACKAGE OUTLINE





SOT-23

DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.90	1.15	0.035	0.045
A1	0.00	0.10	0.000	0.004
b	0.30	0.50	0.012	0.020
c	0.08	0.15	0.003	0.006
D	2.80	3.00	0.110	0.118
E	2.25	2.55	0.089	0.100
E1	1.20	1.40	0.047	0.055
e	0.95 BSC		0.0374 BSC	
e1	1.80	2.00	0.071	0.079
L	0.45	0.65	0.018	0.026
θ	0	8°	0	8°

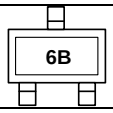


DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.080	2.02
C	0.032	0.80
Z	0.111	2.82
e	0.037 BSC	0.95 BSC
e1	0.075 BSC	1.90 BSC
b	0.032	0.80

Notes

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	WT817
Marking Code	

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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单击下面可查看定价，库存，交付和生命周期等信息

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