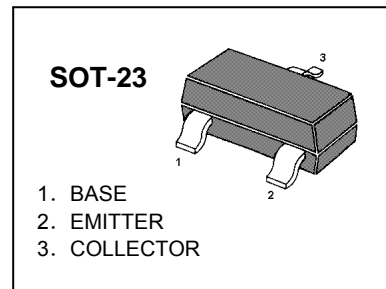


NPN Silicon Power Transistor

The transistor is subdivided into four groups, R, Q, P and E, according to its DC current gain.



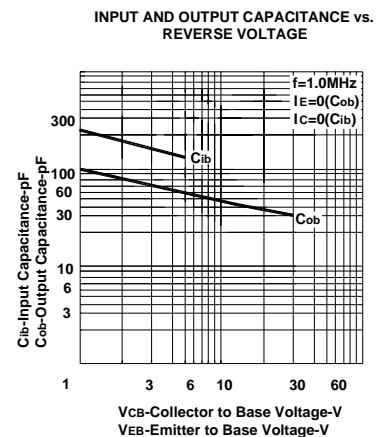
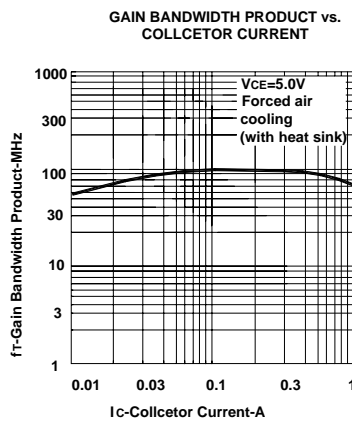
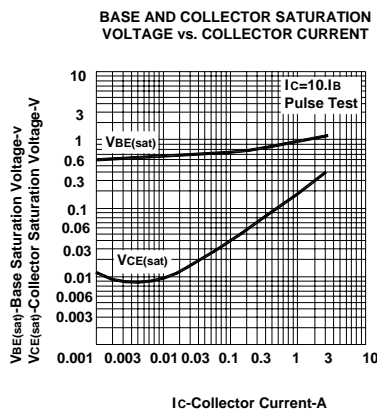
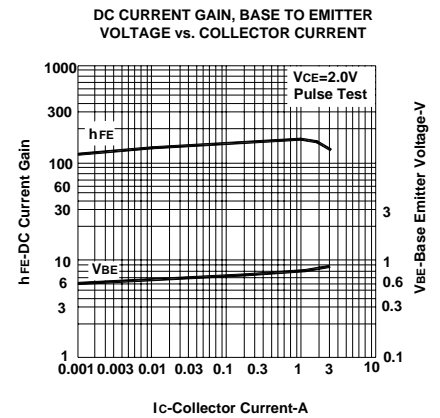
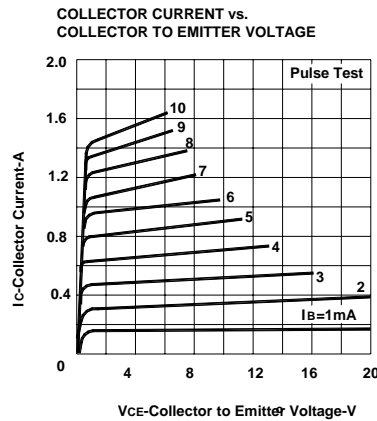
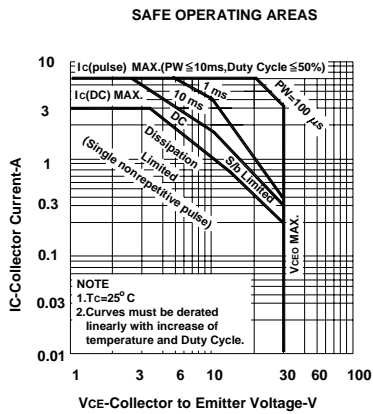
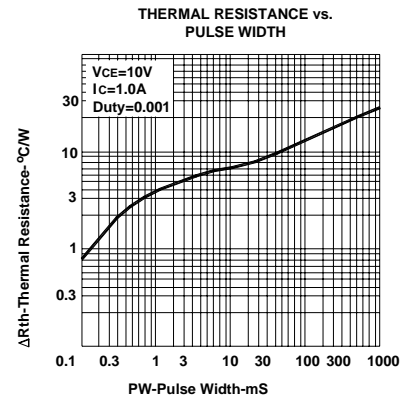
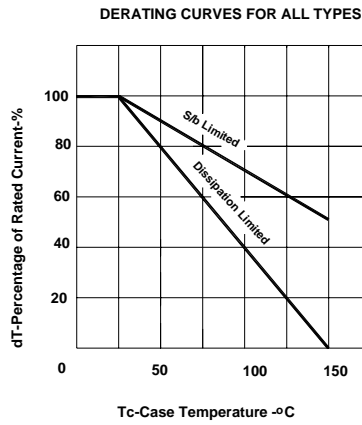
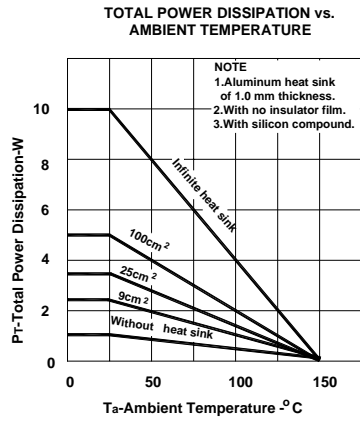
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_{C}	3	A
Peak Collector Current ($t = 10 \text{ ms}$)	I_{CP}	7	A
Total power dissipation ($T_a = 25^\circ\text{C}$)	P_{tot}	1	W
Total power dissipation ($T_c = 25^\circ\text{C}$)	P_{tot}	10	W
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{\text{CE}} = 2 \text{ V}$, $I_{\text{C}} = 20 \text{ mA}$ at $V_{\text{CE}} = 2 \text{ V}$, $I_{\text{C}} = 1 \text{ A}$ Current Gain Group	R	30	-	-	-
	Q	60	-	120	-
	P	100	-	200	-
	E	160	-	320	-
			200	-	400
Collector Base Cutoff Current at $V_{\text{CB}} = 30 \text{ V}$	I_{CBO}	-	-	1	μA
Emitter Base Cutoff Current at $V_{\text{EB}} = 3 \text{ V}$	I_{EBO}	-	-	1	μA
Collector Emitter Saturation Voltage at $I_{\text{C}} = 2 \text{ A}$, $I_{\text{B}} = 0.2 \text{ A}$	$V_{\text{CE(sat)}}$	-	-	0.5	V
Base Emitter Saturation Voltage at $I_{\text{C}} = 2 \text{ A}$, $I_{\text{B}} = 0.2 \text{ A}$	$V_{\text{BE(sat)}}$	-	-	2	V
Gain Bandwidth Product at $V_{\text{CE}} = 5 \text{ V}$, $I_{\text{C}} = 0.1 \text{ A}$	f_{T}	-	90	-	MHz
Output Capacitance at $V_{\text{CB}} = 10 \text{ V}$, $f = 1 \text{ MHz}$	C_{ob}	-	45	-	pF

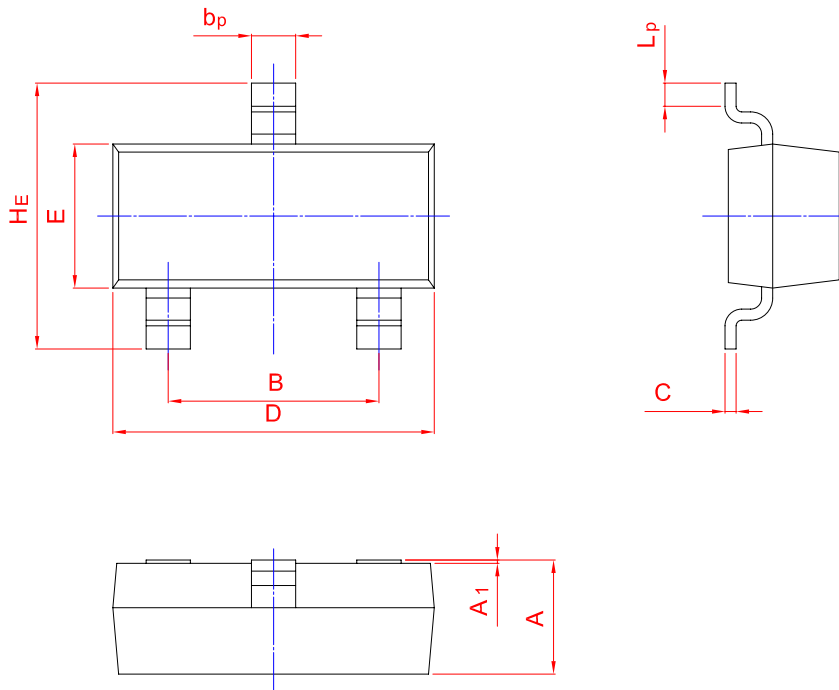
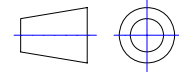
TYPICAL CHARACTERISTICS (Ta=25 °C)



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b _p	C	D	E	H _E	A ₁	L _p
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20

单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)