

MPS3638A

PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications.



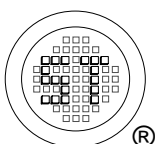
1. Emitter 2. Base 3. Collector
TO-92 Plastic Package
Weight approx. 0.19g

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	25	V
Collector Emitter Voltage	$-V_{CEO}$	25	V
Emitter Base Voltage	$-V_{EBO}$	4	V
Collector Current	$-I_C$	500	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $-V_{CE} = 10\text{ V}$, $-I_C = 1\text{ mA}$	h_{FE}	80	-	-
at $-V_{CE} = 10\text{ V}$, $-I_C = 10\text{ mA}$	h_{FE}	100	-	-
at $-V_{CE} = 1\text{ V}$, $-I_C = 50\text{ mA}$	h_{FE}	100	-	-
at $-V_{CE} = 2\text{ V}$, $-I_C = 300\text{ mA}$	h_{FE}	20	-	-
Collector Cutoff Current at $-V_{CE} = 15\text{ V}$	$-I_{CES}$	-	35	nA
Emitter Cutoff Current at $-V_{EB} = 3\text{ V}$	$-I_{EBO}$	-	35	nA
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	25	-	V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	25	-	V
Emitter Base Breakdown Voltage at $-I_E = 100\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	4	-	V
Collector Emitter Saturation Voltage at $-I_C = 50\text{ mA}$, $-I_B = 2.5\text{ mA}$	$-V_{CEsat}$	-	0.25	V
at $-I_C = 300\text{ mA}$, $-I_B = 30\text{ mA}$	$-V_{CEsat}$	-	1	V
Base Emitter Saturation Voltage at $-I_C = 50\text{ mA}$, $-I_B = 2.5\text{ mA}$	$-V_{BEsat}$	-	1.1	V
at $-I_C = 300\text{ mA}$, $-I_B = 30\text{ mA}$	$-V_{BEsat}$	0.8	2	V
Gain Bandwidth Product at $-V_{CE} = 3\text{ V}$, $-I_C = 50\text{ mA}$, $f = 100\text{ MHz}$	f_T	150	-	MHz
Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{cbo}	-	10	pF



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



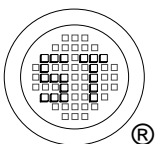
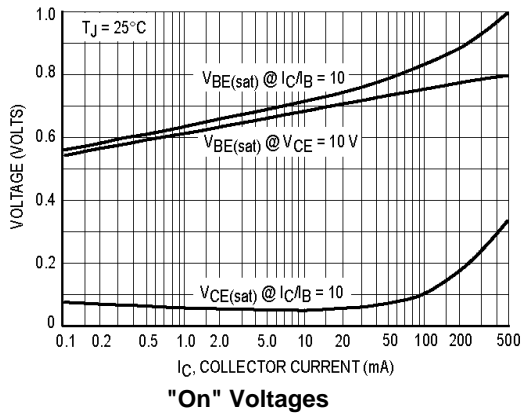
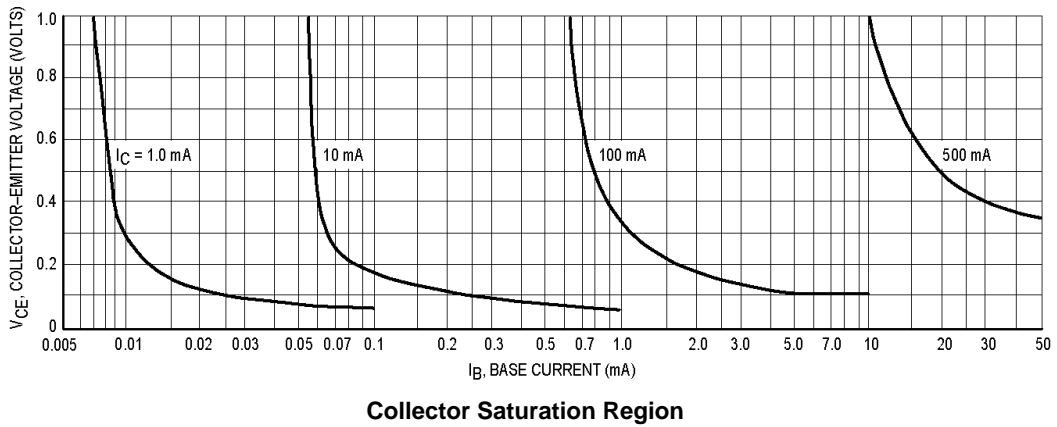
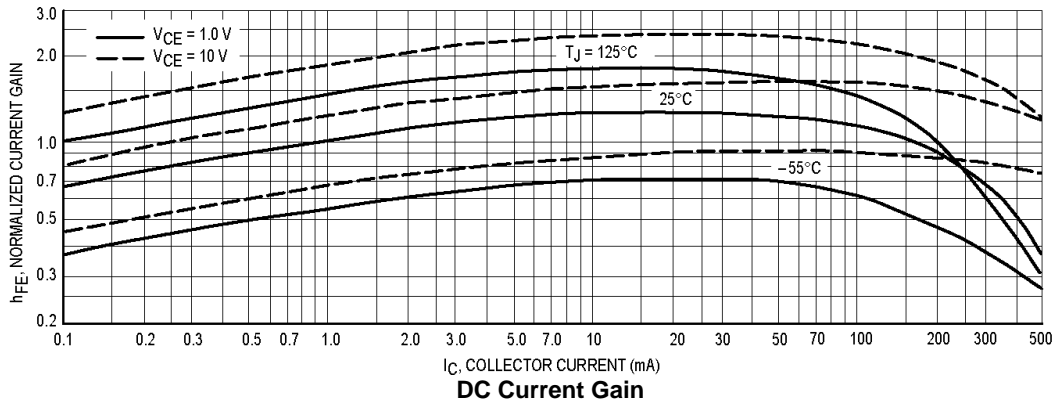
ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098



SEMTECH ELECTRONICS LTD.
 (Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

