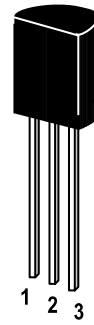


# BV32

## NPN Silicon Epitaxial Planar Transistor

High voltage fast switching power transistor



1. Emitter 2. Collector 3. Base

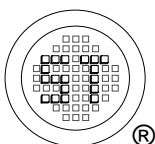
TO-92 Plastic Package  
Weight approx. 0.19g

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	700	V
Collector Emitter Voltage	$V_{CEO}$	400	V
Emitter Base Voltage	$V_{EBO}$	9	V
Collector Current	$I_C$	1.5	A
Collector Peak Current ( $t_p < 5\text{ ms}$ )	$I_{CM}$	3	A
Base Current	$I_B$	0.75	A
Base Peak Current	$I_{BM}$	1.5	A
Total Dissipation	$P_{tot}$	1.1	W
Operating Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

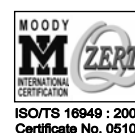
### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 2\text{ V}$ , $I_C = 0.5\text{ A}$ at $V_{CE} = 2\text{ V}$ , $I_C = 1\text{ A}$	$h_{FE}$ $h_{FE}$	8 5	35 25	- -
Collector Cutoff Current at $V_{CB} = 700\text{ V}$	$I_{CBO}$	-	1	mA
Emitter Cutoff Current at $V_{EB} = 9\text{ V}$	$I_{EBO}$	-	1	mA
Collector Emitter Breakdown Voltage at $I_C = 10\text{ mA}$	$V_{(BR)CEO}$	400	-	V
Collector Emitter Saturation Voltage at $I_C = 0.5\text{ A}$ , $I_B = 0.1\text{ A}$ at $I_C = 1\text{ A}$ , $I_B = 0.25\text{ A}$ at $I_C = 1.5\text{ A}$ , $I_B = 0.5\text{ A}$	$V_{CEsat}$	- - -	0.5 1 3	V
Base Emitter Saturation Voltage at $I_C = 0.5\text{ A}$ , $I_B = 0.1\text{ A}$ at $I_C = 1\text{ A}$ , $I_B = 0.25\text{ A}$	$V_{BEsat}$	- -	1 1.2	V



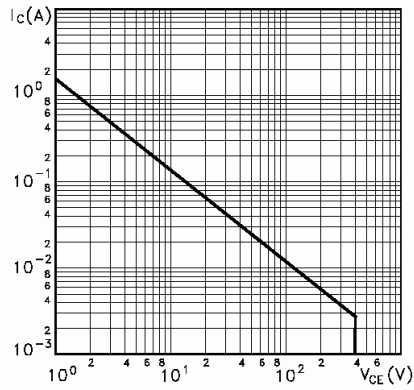
**SEMTECH ELECTRONICS LTD.**

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

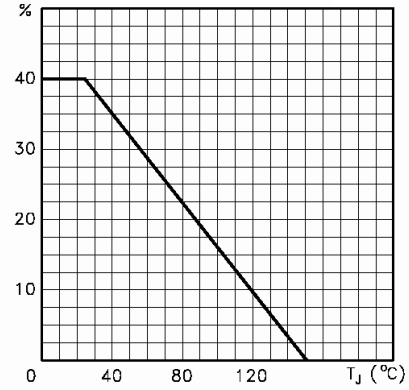


Dated : 16/09/2006

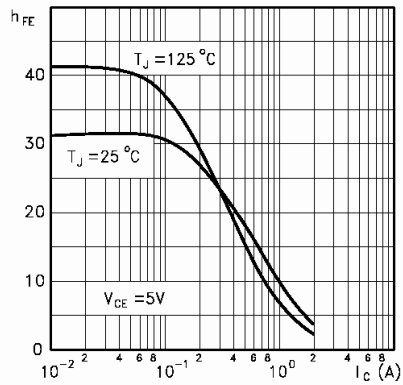
Safe Operating Area



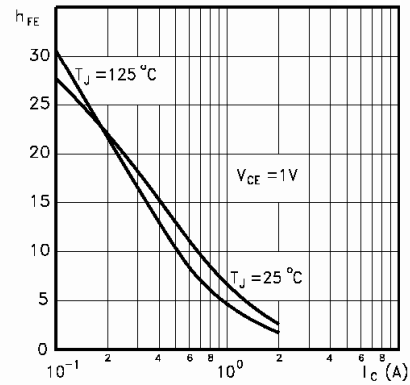
Derating Curve



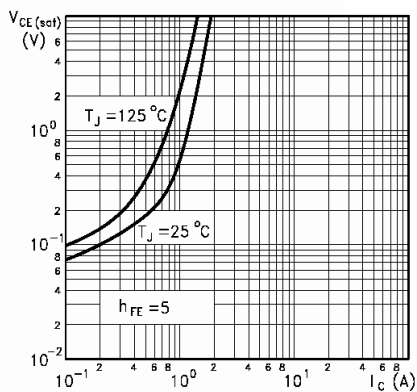
DC Current Gain



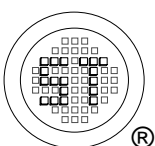
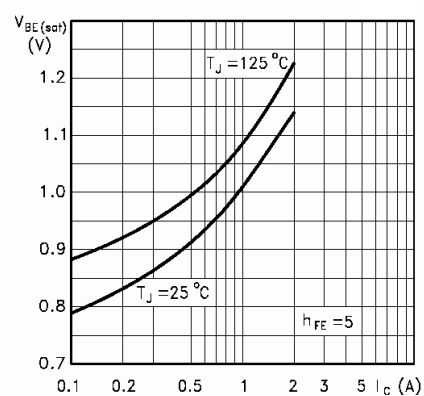
DC Current Gain



Collector Emitter Saturation Voltage



Base Emitter Saturation Voltage



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

