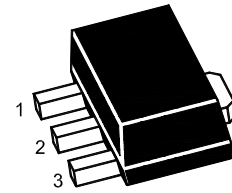


2SB1132U

PNP SILICON EPITAXIAL MEDIUM POWER TRANSISTOR



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

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

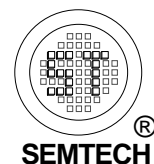
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	40	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	32	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current - DC	$-I_{\text{C}}$	1	A
Collector Current - Pulse ¹⁾	$-I_{\text{CP}}$	2	A
Total Power Dissipation	P_{tot}	0.5 2 ²⁾	W
Junction Temperature	T_{J}	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ Single pulse, PW = 100 ms.

²⁾ When mounted on a 40 X 40 X 0.7 mm ceramic board.

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{\text{CE}} = 3\text{ V}$, $-I_{\text{C}} = 100\text{ mA}$ Current Gain Group	P	82	-	180	-
	Q	120	-	270	-
	R	180	-	390	-
Collector Base Breakdown Voltage at $-I_{\text{C}} = 50\text{ }\mu\text{A}$	$-V_{(\text{BR})\text{CBO}}$	40	-	-	V
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 1\text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	32	-	-	V
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 50\text{ }\mu\text{A}$	$-V_{(\text{BR})\text{EBO}}$	5	-	-	V
Collector Cutoff Current at $-V_{\text{CB}} = 20\text{ V}$	$-I_{\text{CBO}}$	-	-	0.5	μA
Emitter Cutoff Current at $-V_{\text{EB}} = 4\text{ V}$	$-I_{\text{EBO}}$	-	-	0.5	μA
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 500\text{ mA}$, $-I_{\text{B}} = 50\text{ mA}$	$-V_{\text{CE}(\text{sat})}$	-	-	0.5	V
Transition Frequency at $I_{\text{E}} = 50\text{ mA}$, $-V_{\text{CE}} = 5\text{ V}$, $f = 30\text{ MHz}$	f_{T}	-	150	-	MHz
Output Capacitance at $-V_{\text{CB}} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	-	30	pF



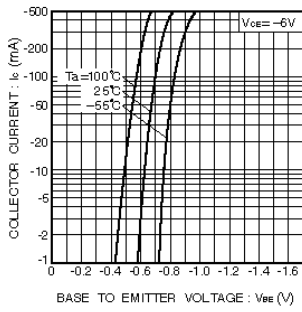


Fig. 1 Grounded emitter propagation characteristics

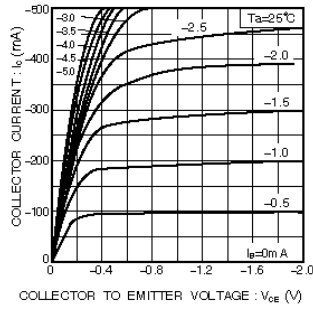


Fig. 2 Grounded emitter output characteristics

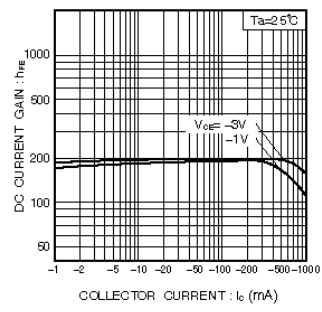


Fig. 3 DC current gain vs. collector current(I)

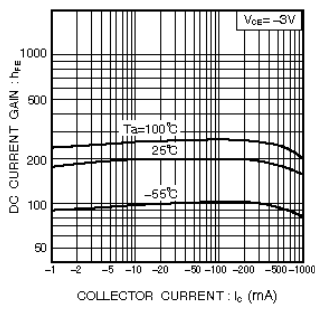


Fig. 4 DC current gain vs. collector current(II)

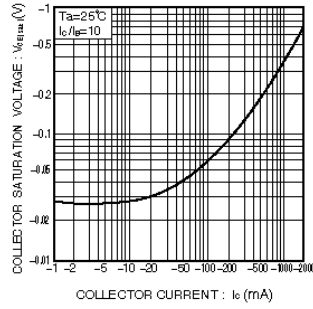


Fig. 5 Collector-emitter saturation voltage vs. collector current

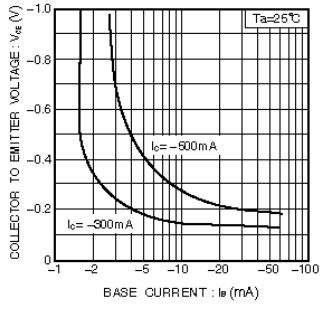


Fig. 6 Collector-emitter saturation voltage vs. base current

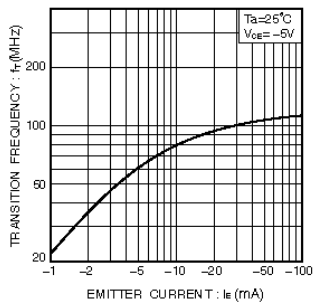


Fig. 7 Gain bandwidth product vs. emitter current

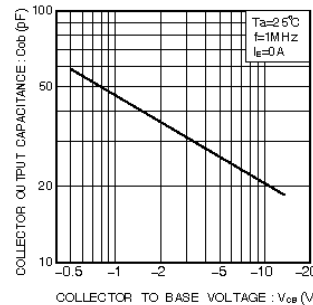


Fig. 8 Collector output capacitance vs. collector-base voltage

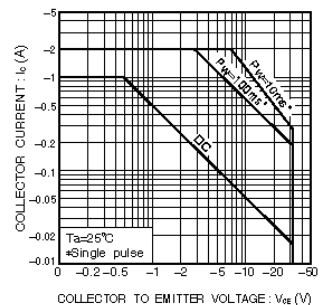


Fig. 9 Safe operation area

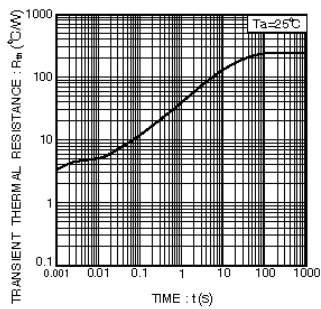
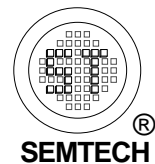
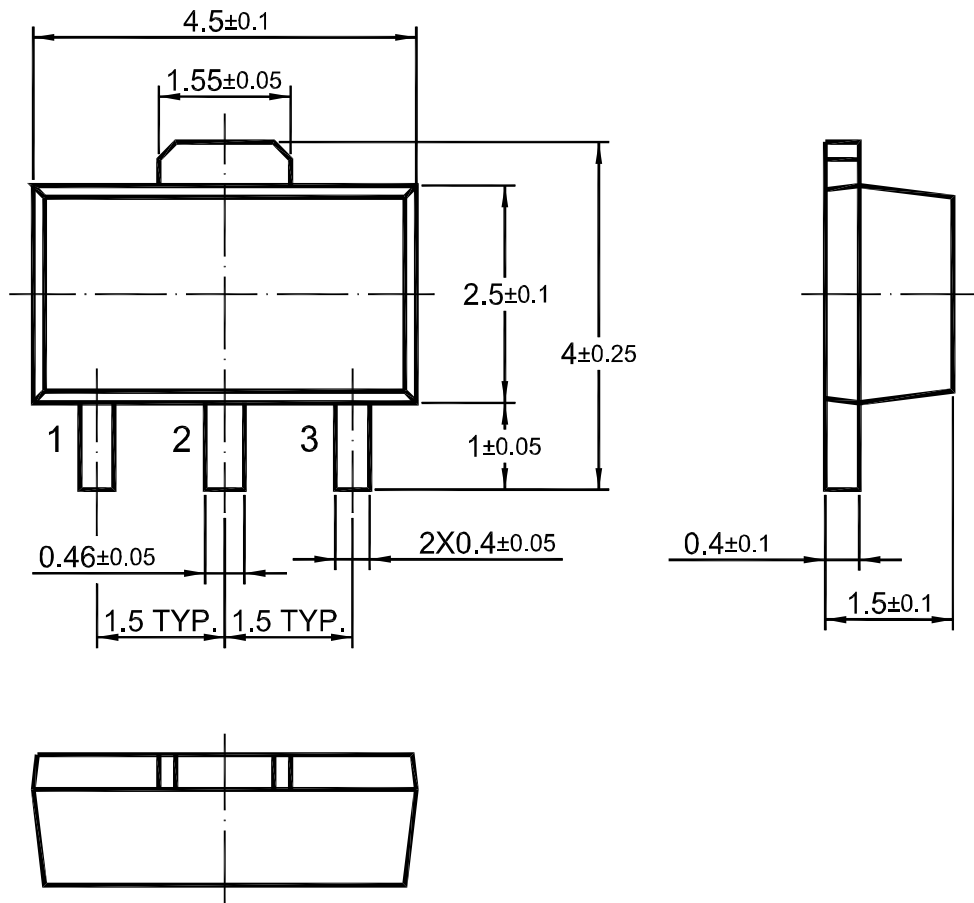


Fig. 10 Transient thermal resistance



2SB1132U

SOT-89 PACKAGE OUTLINE



Dimensions in mm



Dated: 15/08/2016 Rev: 02