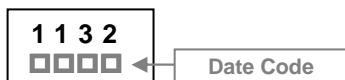


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

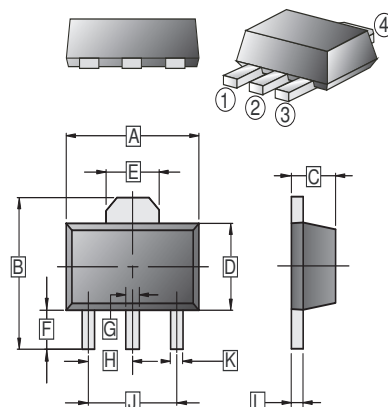
## FEATURES

- Low power dissipation 0.5W

## MARKING



## SOT-89



## CLASSIFICATION OF $h_{FE}$

Product Rank	2SB1132-P	2SB1132-Q	2SB1132-R
Range	82~180	120~270	180~390

## PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-89	1K	7' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50	TYP
C	1.40	1.60	J	3.00	TYP
D	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.2			

## ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	$V_{CBO}$	-40	V
Collector-Emitter Voltage	$V_{CEO}$	-32	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current (DC)	$I_C$	-1	A
Collector Power Dissipation	$P_C$	500	mW
Junction & Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C = -50\mu\text{A}, I_E = 0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-32	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -50\mu\text{A}, I_C = 0$
Collector cut-off current	$I_{CBO}$	-	-	-0.5	$\mu\text{A}$	$V_{CB} = -20\text{V}, I_E = 0$
Emitter cut-off current	$I_{EBO}$	-	-	-0.5	$\mu\text{A}$	$V_{EB} = -4\text{V}, I_C = 0$
DC current gain	$h_{FE}$	82	-	390		$V_{CE} = -3\text{V}, I_C = -100\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-0.2	-0.5	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Transition frequency	$f_T$	-	150	-	MHZ	$V_{CE} = -5\text{V}, I_C = -50\text{mA}, f = 30\text{MHz}$
Collector output capacitance	$C_{ob}$	-	20	30	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$

**CHARACTERISTIC CURVES**

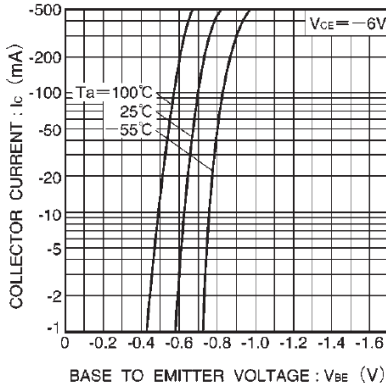


Fig.1 Grounded emitter propagation characteristics

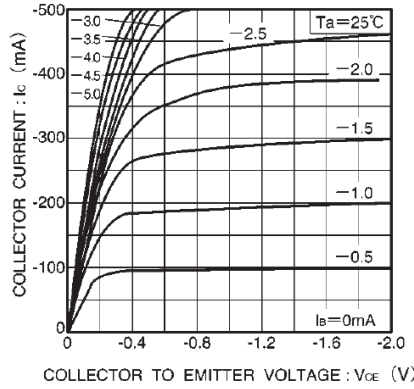


Fig.2 Grounded emitter output characteristics

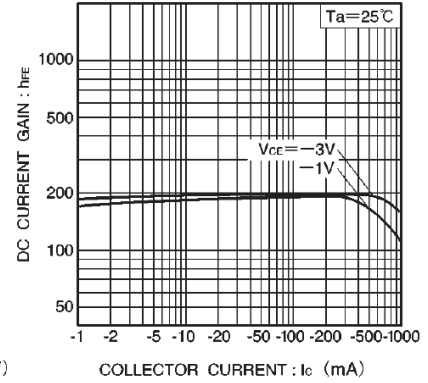


Fig.3 DC current gain vs. collector current ( I )

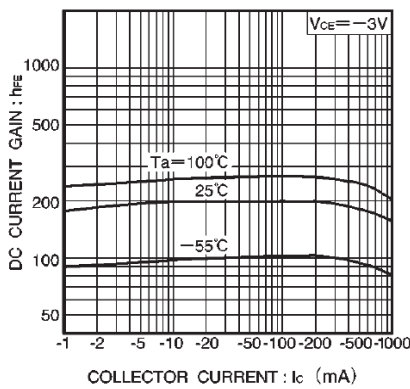


Fig.4 DC current gain vs. collector current ( II )

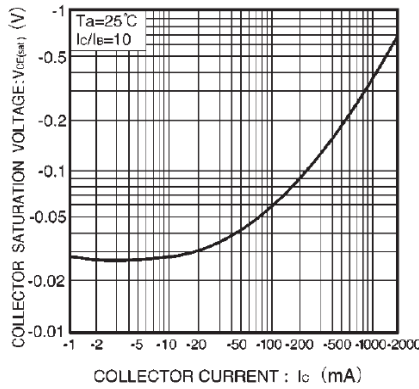


Fig.5 Collector-emitter saturation voltage vs. collector current

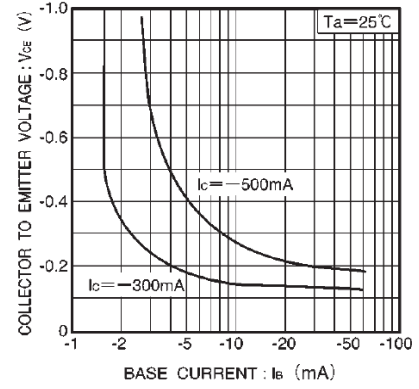


Fig.6 Collector-emitter saturation voltage vs. base current

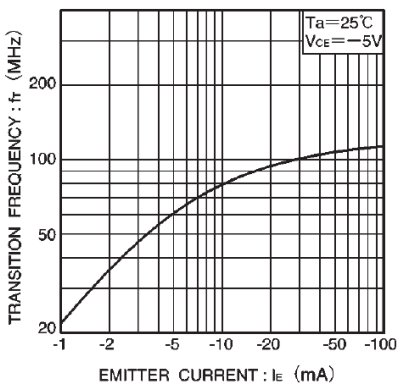


Fig.7 Gain bandwidth product vs. emitter current

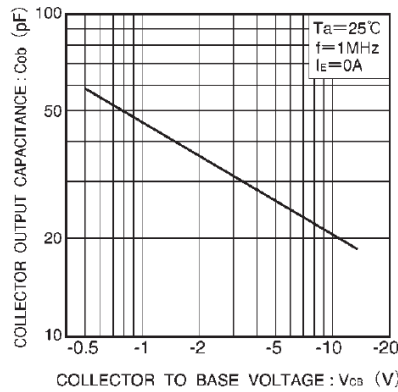


Fig.8 Collector output capacitance vs. collector-base voltage

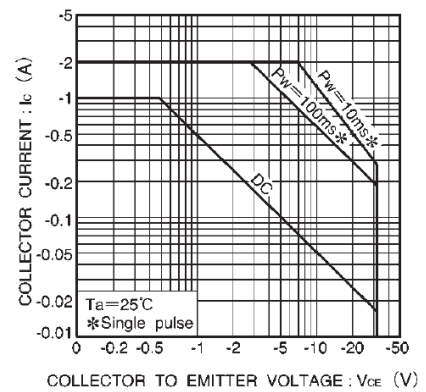


Fig.9 Safe operation area (2SB1132)

**CHARACTERISTIC CURVES**

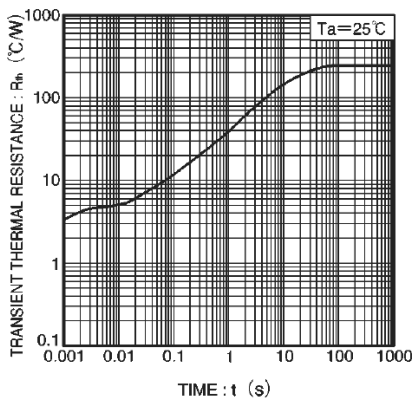


Fig.10 Transient thermal resistance

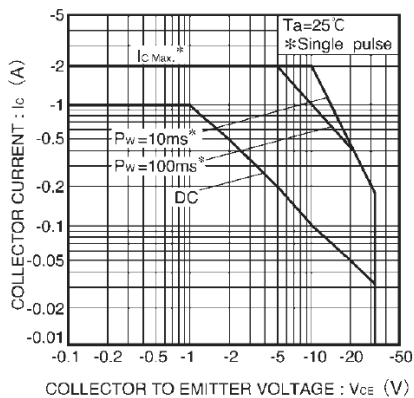


Fig.11 Safe operation area

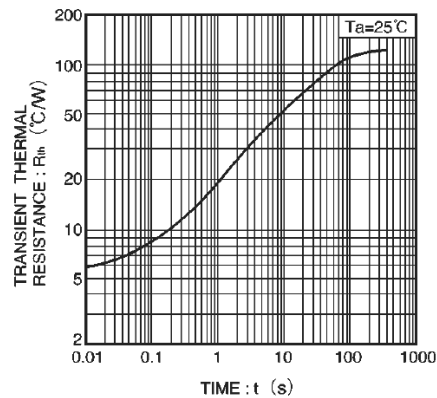


Fig.12 Transient thermal resistance