

2SC4132

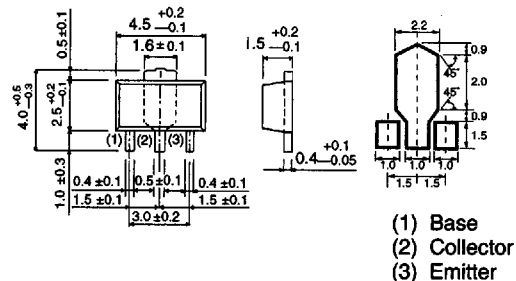
Transistor, NPN

Features

- available in MPT3 (MPT, SOT-89, SC-62) package
- package marking: 2SC4132; CB★, where ★ is h_{FE} code
- high breakdown voltage
 $BV_{CEO} = 120\text{ V}$
- high transition frequency (f_T)
- low output capacitance (C_{ob})
- $P_C = 2\text{ W}$ when mounted on $40 \times 40 \times 0.7\text{ mm}$ ceramic substrate

Dimensions (Units : mm)

2SC4132 (MPT3)



Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

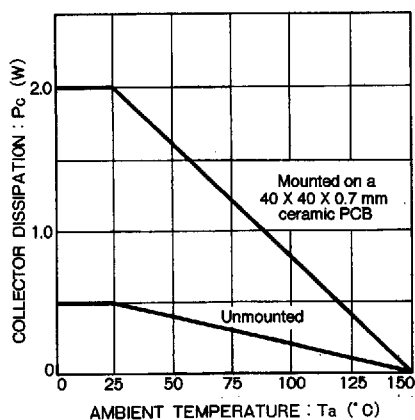
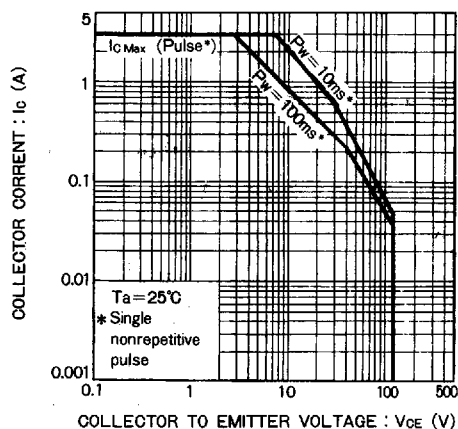
Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	V_{CBO}	120	V	
Collector-to-emitter voltage	V_{CEO}	120	V	
Emitter-to-base voltage	V_{EBO}	5	V	
Collector current	I_C	2	A	Single pulse, $P_W = 10\text{ ms}$
	I_{CP}	3		
Collector dissipation	P_C	0.5	W	Mounted on $40 \times 40 \times 0.7\text{ mm}$ ceramic substrate
		2		
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$	

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-base breakdown voltage	BV_{CBO}	120			V	$I_C = 50\ \mu\text{A}$
Collector-to-emitter breakdown voltage	BV_{CEO}	120			V	$I_C = 1\ \text{mA}$
Emitter-to-base breakdown voltage	BV_{EBO}	5			V	$I_E = 50\ \mu\text{A}$
Collector cutoff current	I_{CBO}			1.0	μA	$V_{CB} = 100\ \text{V}$
Emitter cutoff current	I_{EBO}			1.0	μA	$V_{EB} = 4\ \text{V}$
DC current gain	h_{FE}	82		390		$V_{CE} = 5\ \text{V}$, $I_C = 0.1\ \text{A}$, single pulse
Collector-to-emitter saturation voltage	$V_{CE(sat)}$			0.4	V	$I_C/I_B = 1.0\ \text{A}/0.1\ \text{A}$, single pulse
Transition frequency	f_T		80		MHz	$V_{CE} = 5\ \text{V}$, $I_E = -0.1\ \text{A}$, $f = 30\ \text{MHz}$, single pulse
Output capacitance	C_{ob}		20		pF	$V_{CB} = 10\ \text{V}$, $I_E = 0\ \text{A}$, $f = 1\ \text{MHz}$

 h_{FE} rankings

Item	P	Q	R
h_{FE}	82 ~ 180	120 ~ 270	180 ~ 390

Electrical characteristic curves

Figure 1

Figure 2

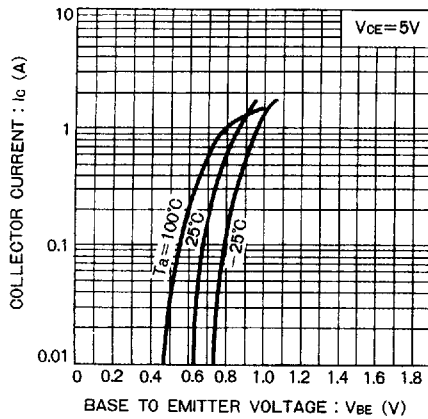


Figure 3

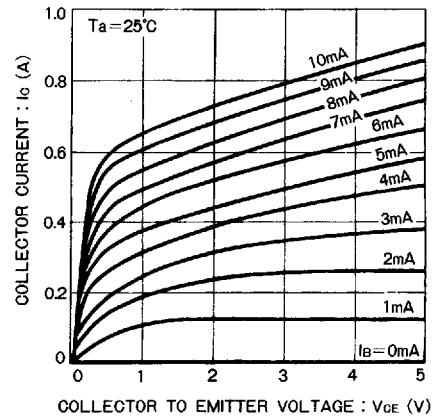


Figure 4

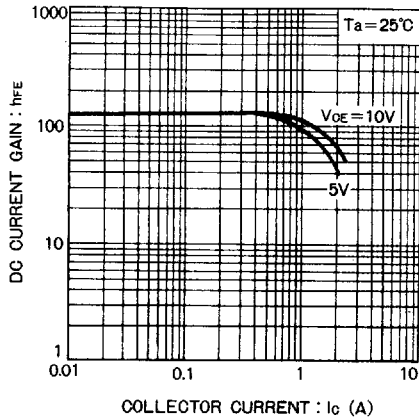


Figure 5

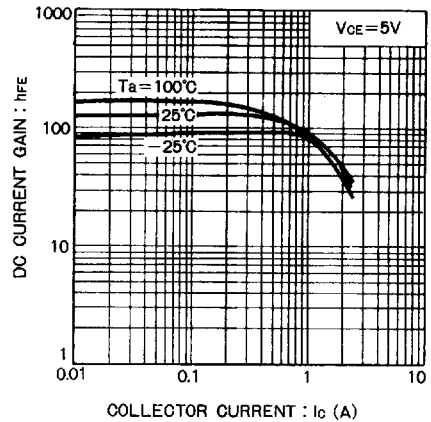


Figure 6

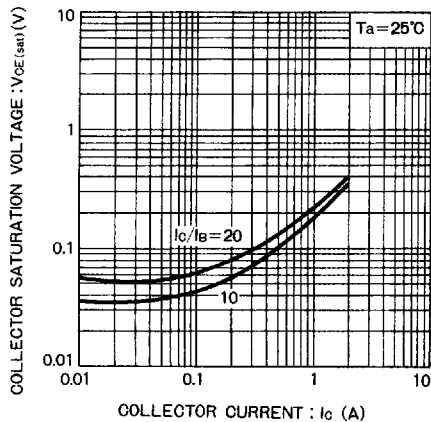


Figure 7

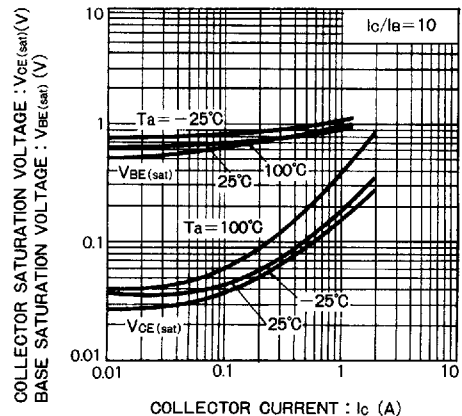


Figure 8

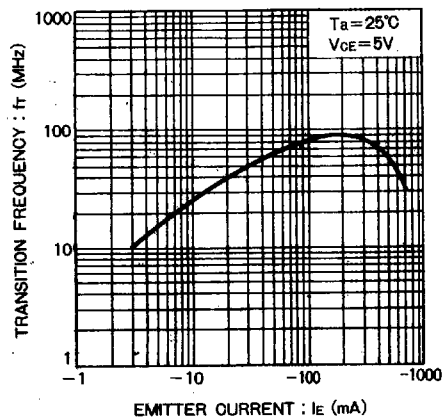


Figure 9

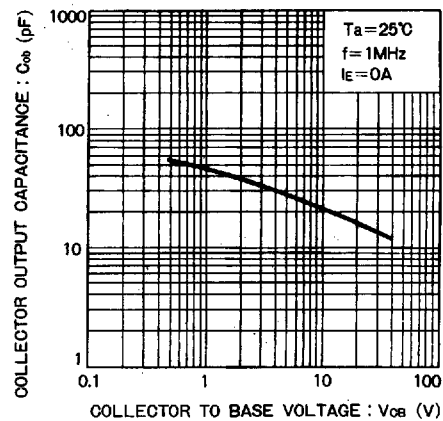


Figure 10

Ordering information

Package	Tape
Code	T100
Basic order quantity	1000
2SC4132	☆
★ = Standard, ☆ = Semi-standard, * = Special order	