

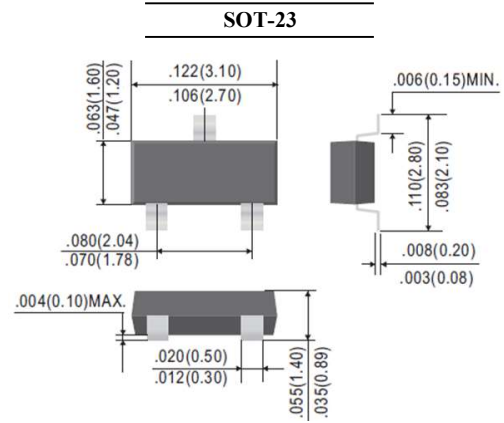
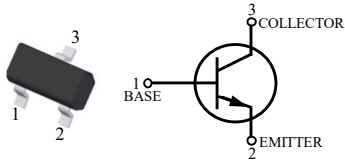


2SC5084OH / 2SC5084YH

NPN TRANSISTOR

FEATURES

· Suffix "H" indicates Halogen-free parts, ex. 2SC5084OH



Dimensions in inches and (millimeter)

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	20	V
Collector Emitter Voltage	V_{CEO}	12	V
Emitter Base Voltage	V_{EBO}	3	V
Collector Current	I_C	80	mA
Base Current	I_B	40	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Note :

1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain	$I_C = 20\text{mA}$, $V_{CE} = 10\text{V}$	O	80	-	160	-
		Y	120	-	240	-
Collector Base Cutoff Current	$V_{CB} = 10\text{V}$	I_{CBO}	-	-	1	μA
Collector Emitter Cutoff Current	$V_{EB} = 1\text{V}$	I_{EBO}	-	-	1	μA
Collector Base Breakdown Voltage	$I_C = 10\mu\text{A}$	$V_{(BR)CBO}$	20	-	-	V
Collector Emitter Breakdown Voltage	$I_C = 1\text{mA}$	$V_{(BR)CEO}$	12	-	-	V
Emitter Base Breakdown Voltage	$I_E = 10\mu\text{A}$	$V_{(BR)EBO}$	3	-	-	V
Collector Emitter Saturation Voltage	$I_C = 10\text{mA}$, $I_B = 5\text{mA}$	$V_{CE(sat)}$	-	-	0.5	V
Gain Bandwidth Product	$I_C = 20\text{mA}$, $V_{CE} = 10\text{V}$	f_T	-	7	-	GHz
Output Capacitance	$V_{CB} = 10\text{V}$, $f = 1\text{MHz}$	C_{ob}	-	1	-	pF



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RATINGS AND CHARACTERISTIC CURVES

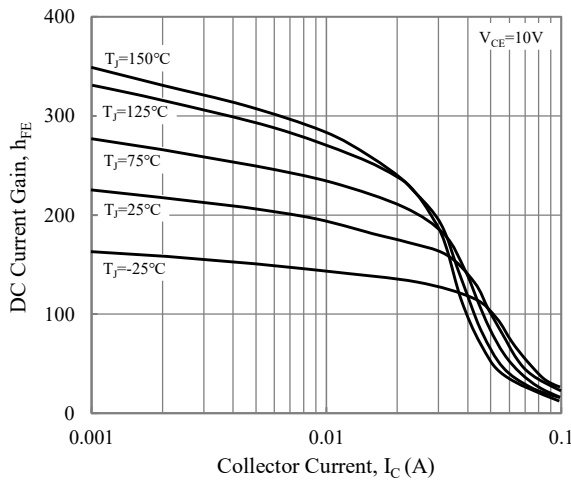


Fig. 1-Current Gain vs Collector Current

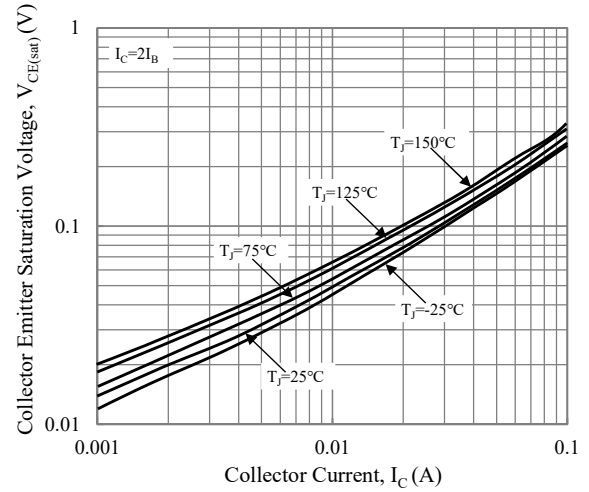


Fig. 2-Collector Emitter Saturation Voltage vs Collector Current

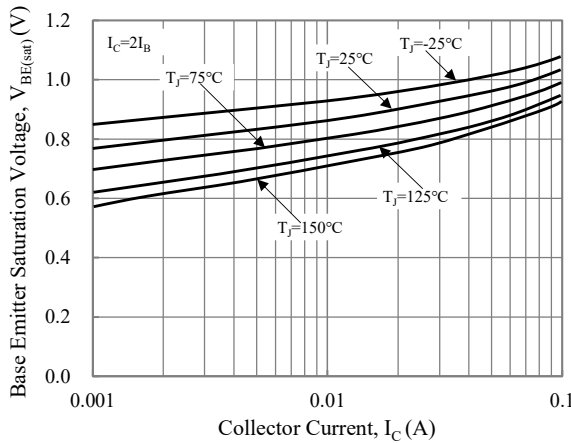


Fig. 3-Base Emitter Saturation Voltage vs Collector Current

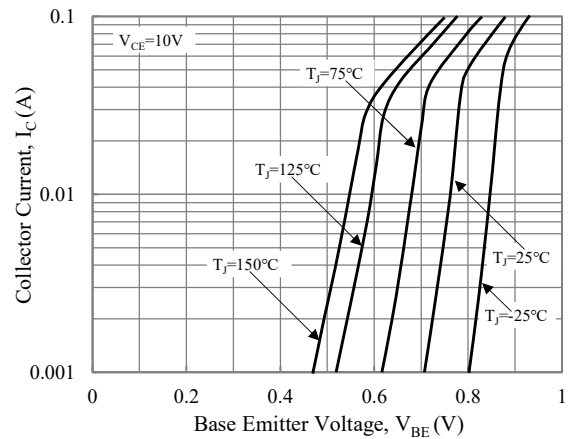


Fig. 4-Base Emitter Voltage vs Collector Current

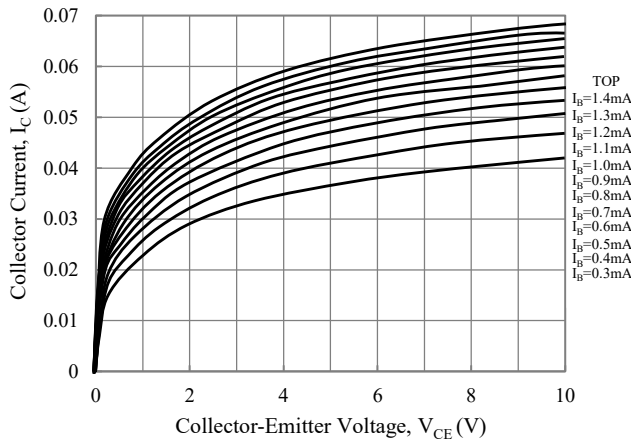


Fig. 5-Output Characteristics

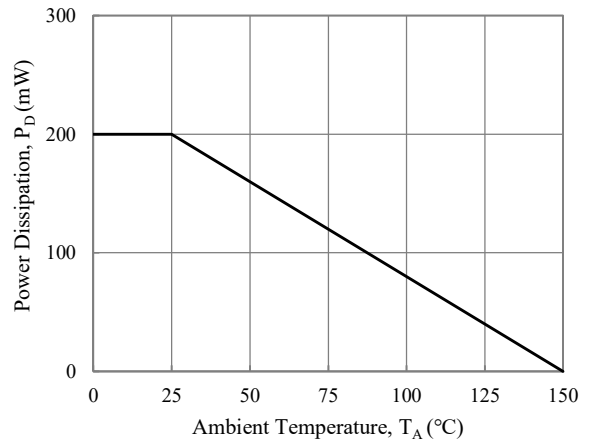


Fig. 6-Power Derating Curves



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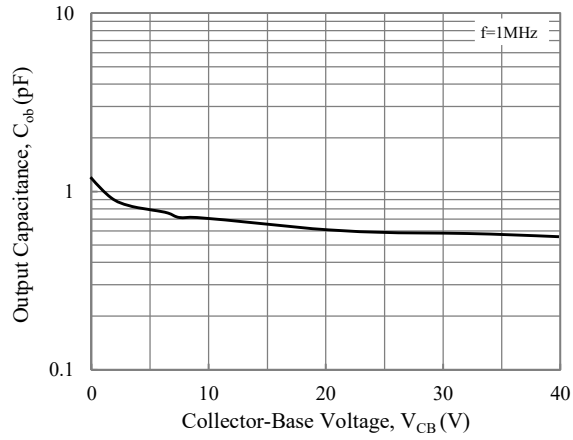


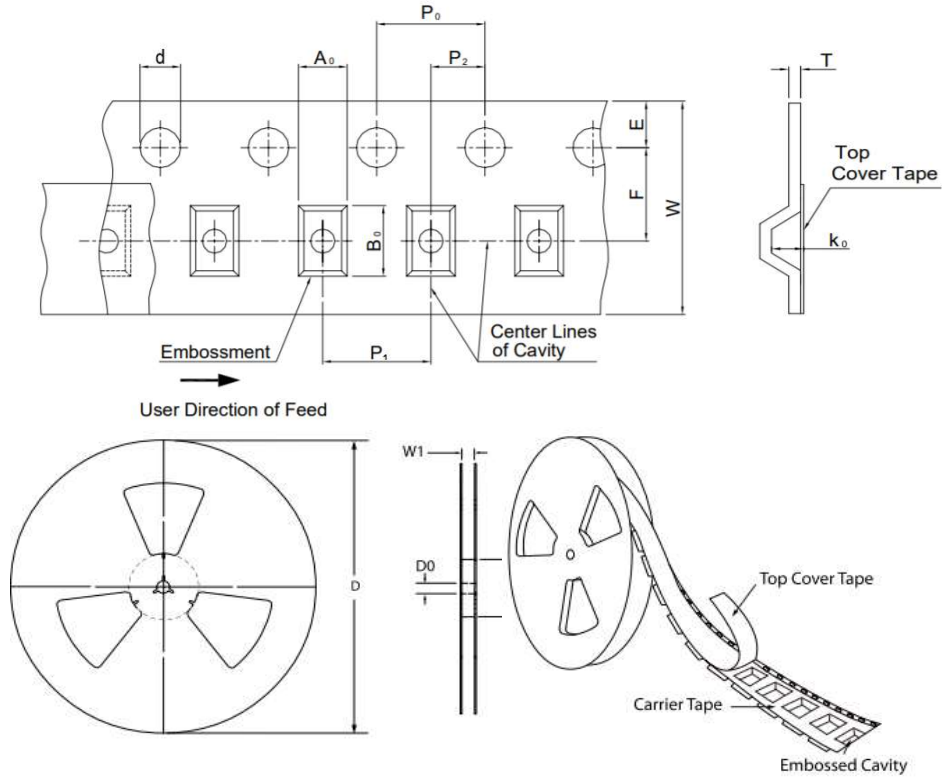
Fig. 7-Output Capacitance



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TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A ₀	3.30 ± 0.10
Carrier length	B ₀	3.30 ± 0.10
Carrier depth	K ₀	1.55 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.50
Reel inner diameter	D ₁	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P ₀	4.00 ± 0.10
Punch hole pitch	P ₁	4.00 ± 0.10
Embossment center	P ₂	2.00 ± 0.10
Overall tape thickness	T	MAX. 0.20
Tape width	W	8.00 ± 0.30
Reel width	W ₁	MAX. 10.00

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3,000

MARKING CODE

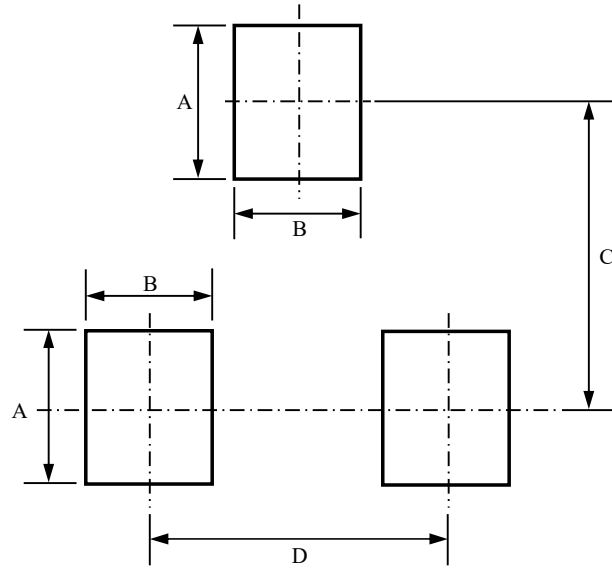
Part Number	Marking Code
2SC5084OH	R24
2SC5084YH	R25



2SC5084OH / 2SC5084YH

NPN TRANSISTOR

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-23	1.00	0.80	2.00	1.90