

2SA2184-HF (PNP)

RoHS Device

Halogen Free



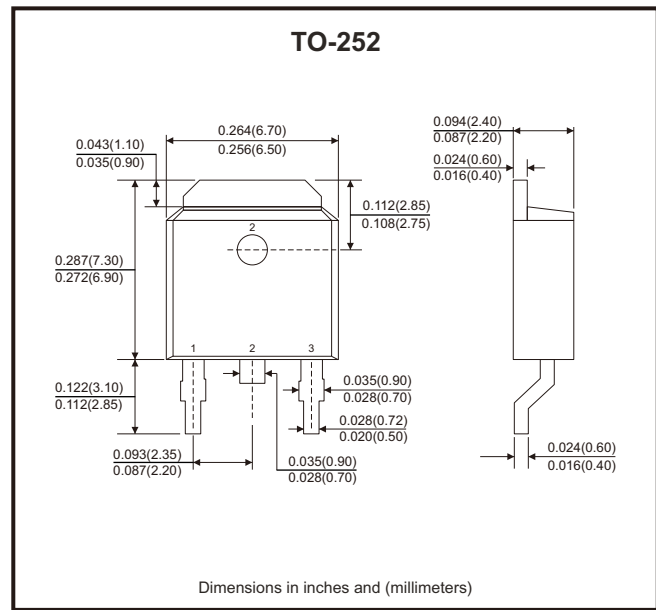
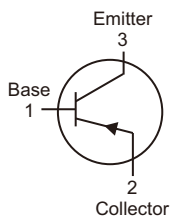
Features

- Low collector saturation voltage.
 $V_{CE(sat)} = -0.7V(\text{Max.}) @ I_C = -0.3A$
- High switching speed.
- Designed for high current switching applications.

Mechanical data

- Case: TO-252, molded plastic.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	-480	V
Collector-emitter voltage	V_{CEO}	-450	V
Emitter-base voltage	V_{EBO}	-7	V
Collector current-continuous	I_C	-1	A
Base current-continuous	I_B	-0.5	A
Collector power dissipation @ $T_A = 25^\circ\text{C}$	P_C	1	W
Collector power dissipation @ $T_C = 25^\circ\text{C}$		20	
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics (at $T_J=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	$V_{BR(CEO)}$	$I_C = -10\text{mA}$, $I_B = 0$	-450			V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -300\text{mA}$, $I_B = -60\text{mA}$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -300\text{mA}$, $I_B = -60\text{mA}$			-1.2	V
Collector cutoff current	I_{CBO}	$V_{CB} = -480\text{V}$, $I_E = 0$			-10	μA
Emitter cutoff current	I_{EBO}	$V_{BE} = -7\text{V}$, $I_C = 0$			-1.0	μA
DC current gain	$h_{FE(1)}$	$I_C = -100\text{mA}$, $V_{CE} = -5\text{V}$	80		300	
DC current gain	$h_{FE(2)}$	$I_C = -500\text{mA}$, $V_{CE} = -5\text{V}$	5			

Rating and Characteristic Curves (2SA2184-HF)

Fig.1 - $h_{FE} — I_C$

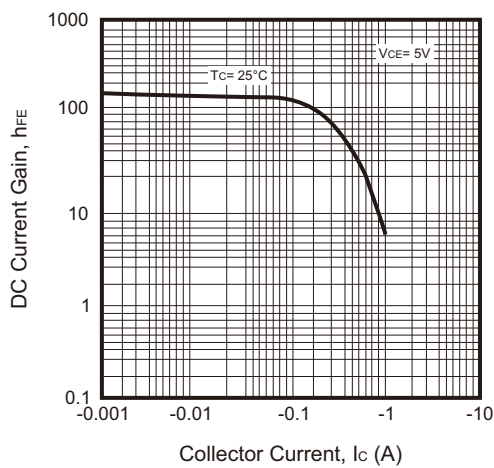
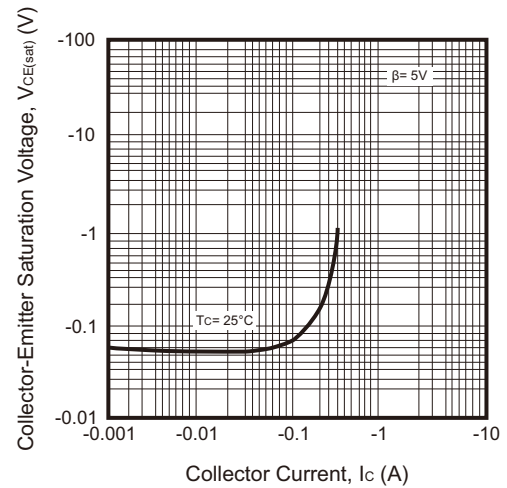
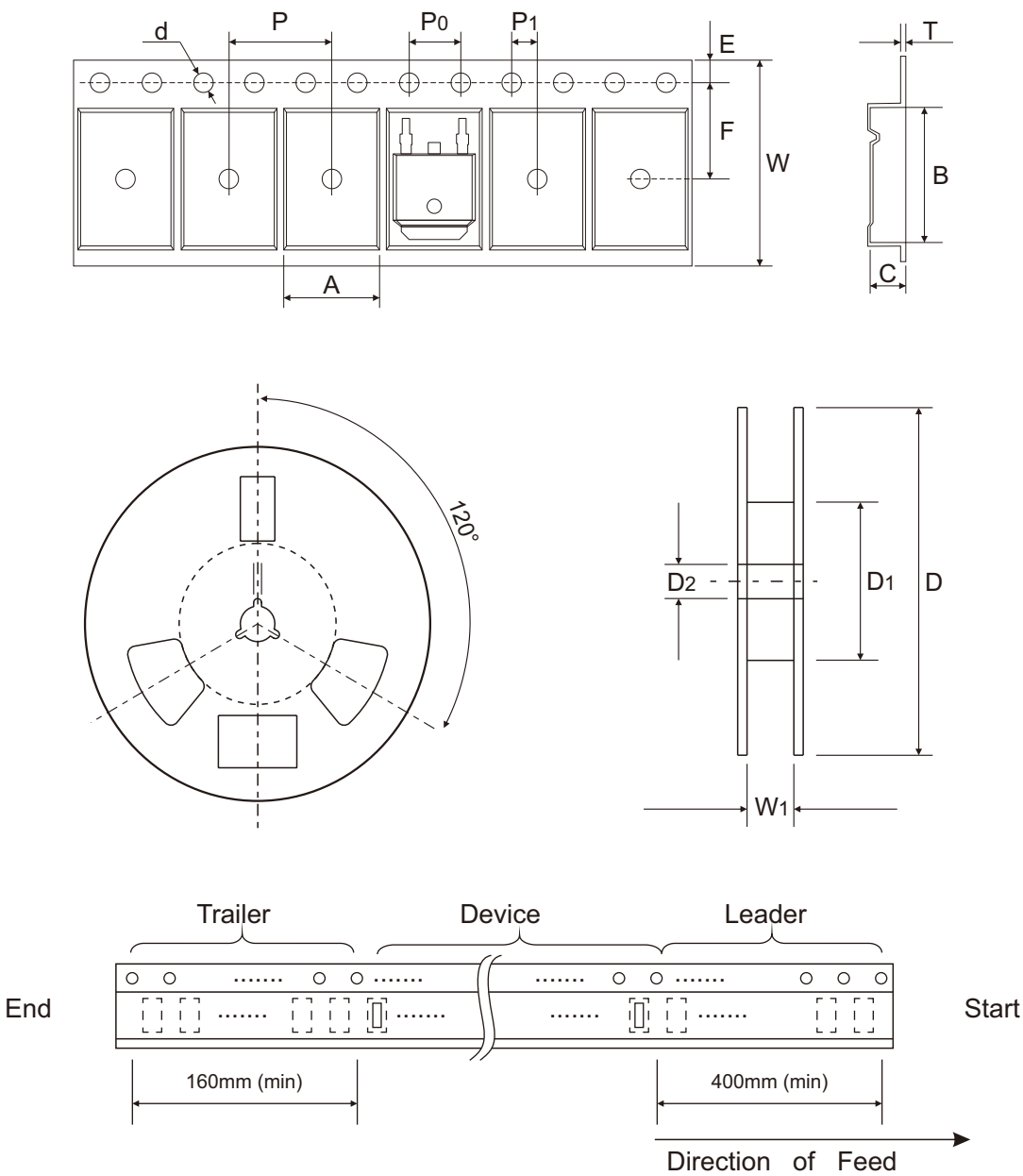


Fig.2 - $V_{CE(sat)} — I_C$



Reel Taping Specification

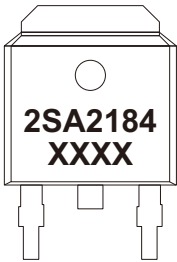


TO-252	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.90 ± 0.10	10.50 ± 0.10	2.70 ± 0.10	1.55 ± 0.05	330 ± 2.00	100 ± 2.00	13.00 ± 0.20
	(inch)	0.272 ± 0.004	0.413 ± 0.004	0.106 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	3.937 ± 0.079	0.512 ± 0.008

TO-252	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	7.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.30 ± 0.05	16.00 ± 0.10	16.40 + 0.20 - 0.00
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.012 ± 0.002	0.630 ± 0.004	0.646 + 0.008 - 0.000

Marking Code

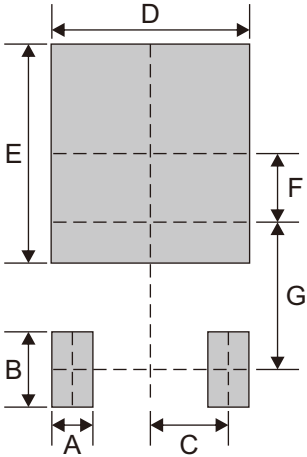
Part Number	Marking Code
2SA2184-HF	2SA2184



XXXX = Control code

Suggested P.C.B. PAD Layout

SIZE	TO-252	
	(mm)	(inch)
A	1.20	0.047
B	2.20	0.087
C	2.28	0.090
D	5.80	0.228
E	6.40	0.252
F	2.07	0.081
G	4.23	0.167



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
TO-252	2,500	13