

2SA1012 TRANSISTOR (PNP)

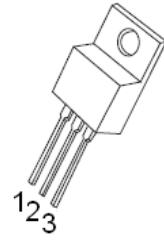
FEATURES

- High Current Switching Applications
- Low Collector Saturation Voltage
- High Speed Switching Time

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-60	V
V _{CE0}	Collector-Emitter Voltage	-50	V
V _{EB0}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-5	A
P _C	Collector Power Dissipation	2	W
R _{θJA}	Thermal Resistance Junction to Ambient	62.5	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

TO-220-3L



1. BASE
2. COLLECTOR
3. EMITTER

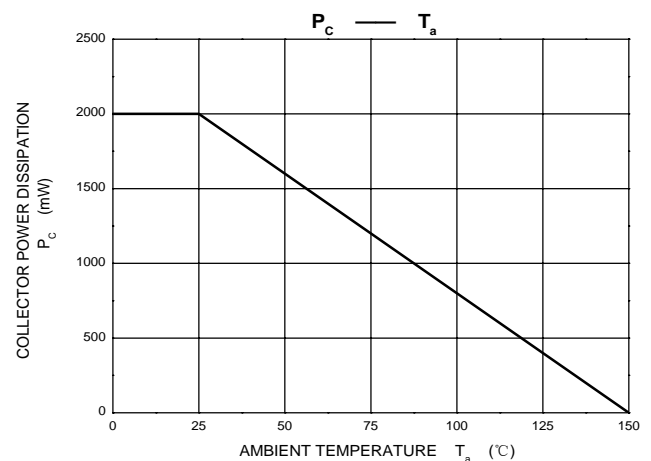
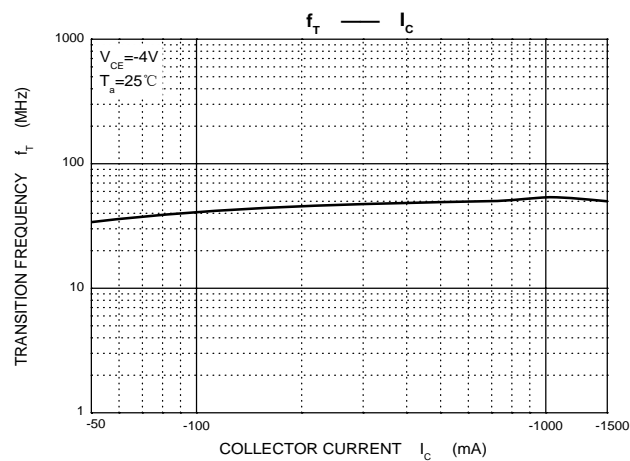
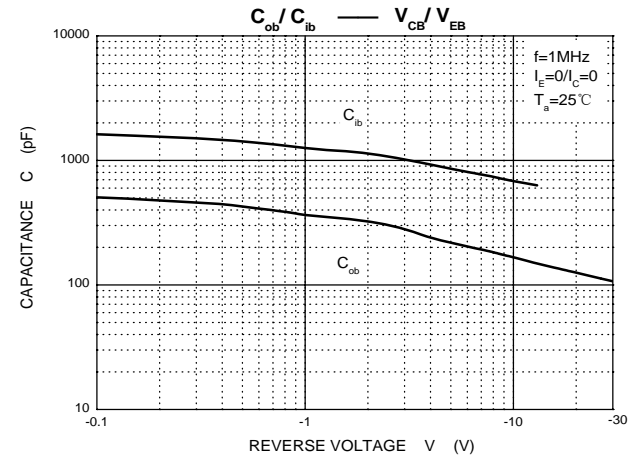
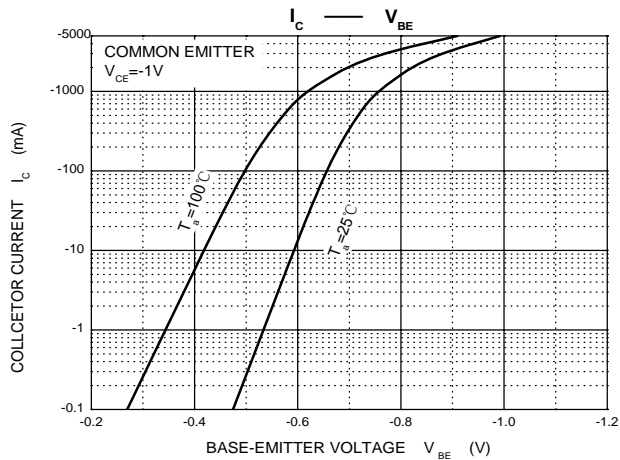
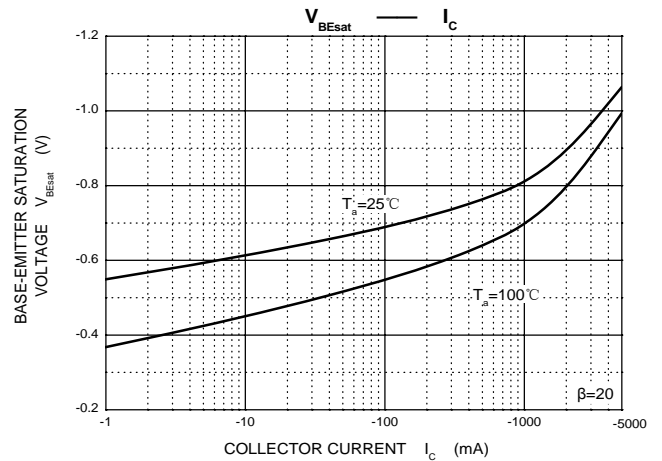
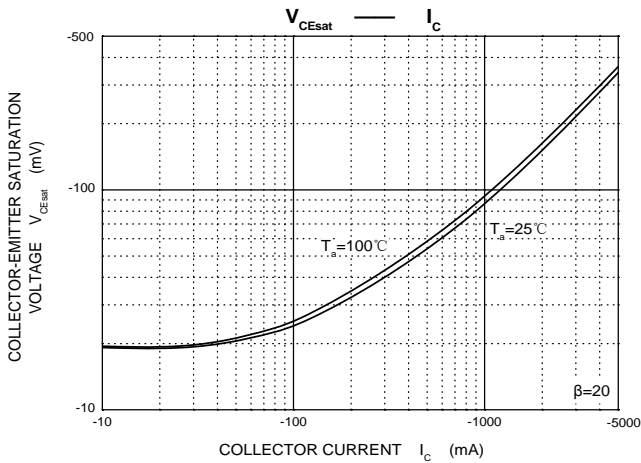
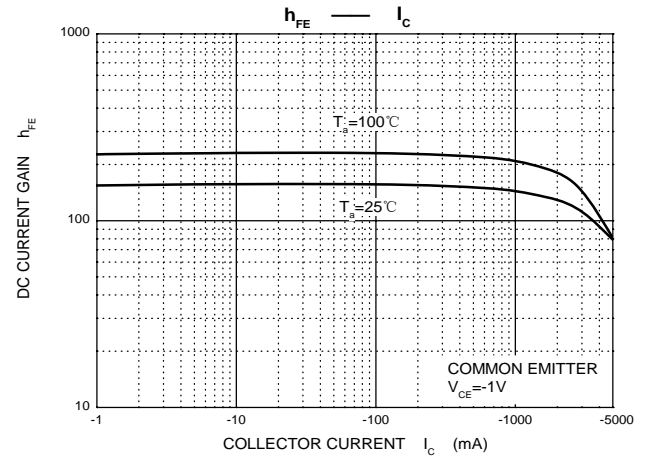
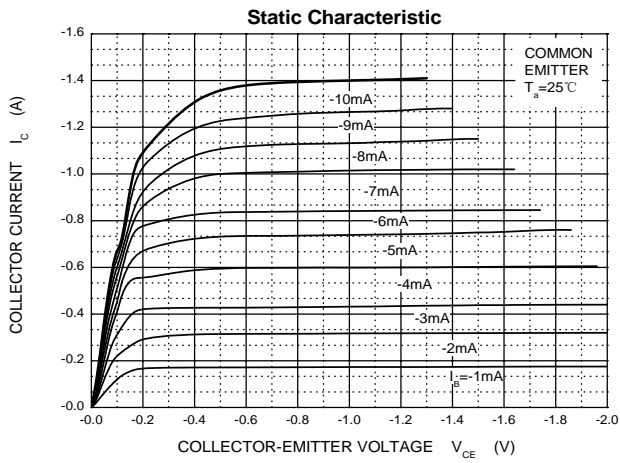
ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -0.1mA, I _E = 0	-60			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C = -10mA, I _B = 0	-50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -100μA, I _C = 0	-5			V
Collector cut-off current	I _{CB0}	V _{CB} = -50V, I _E = 0			-1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5V, I _C = 0			-1	μA
DC current gain	h _{FE(1)}	V _{CE} = -1V, I _C = -1A	70		240	
	h _{FE(2)} *	V _{CE} = -1V, I _C = -3A	30			
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C = -3A, I _B = -150mA			-0.4	V
Base-emitter saturation voltage	V _{BE(sat)} *	I _C = -3A, I _B = -150mA			-1.2	V
Transition frequency	f _T	V _{CE} = -4V, I _C = -1A		60		MHz
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz		170		pF
Turn-on Time	t _{on}	V _{CC} = -30V, I _C = -3A, I _{B1} = -I _{B2} = -0.15A		0.1		μs
Storage Time	t _s			1.0		
Fall Time	t _f			0.1		

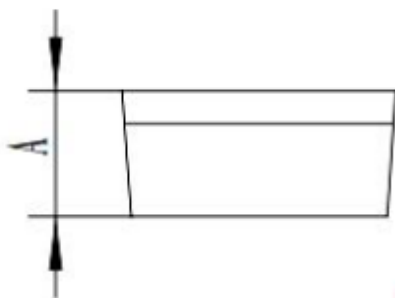
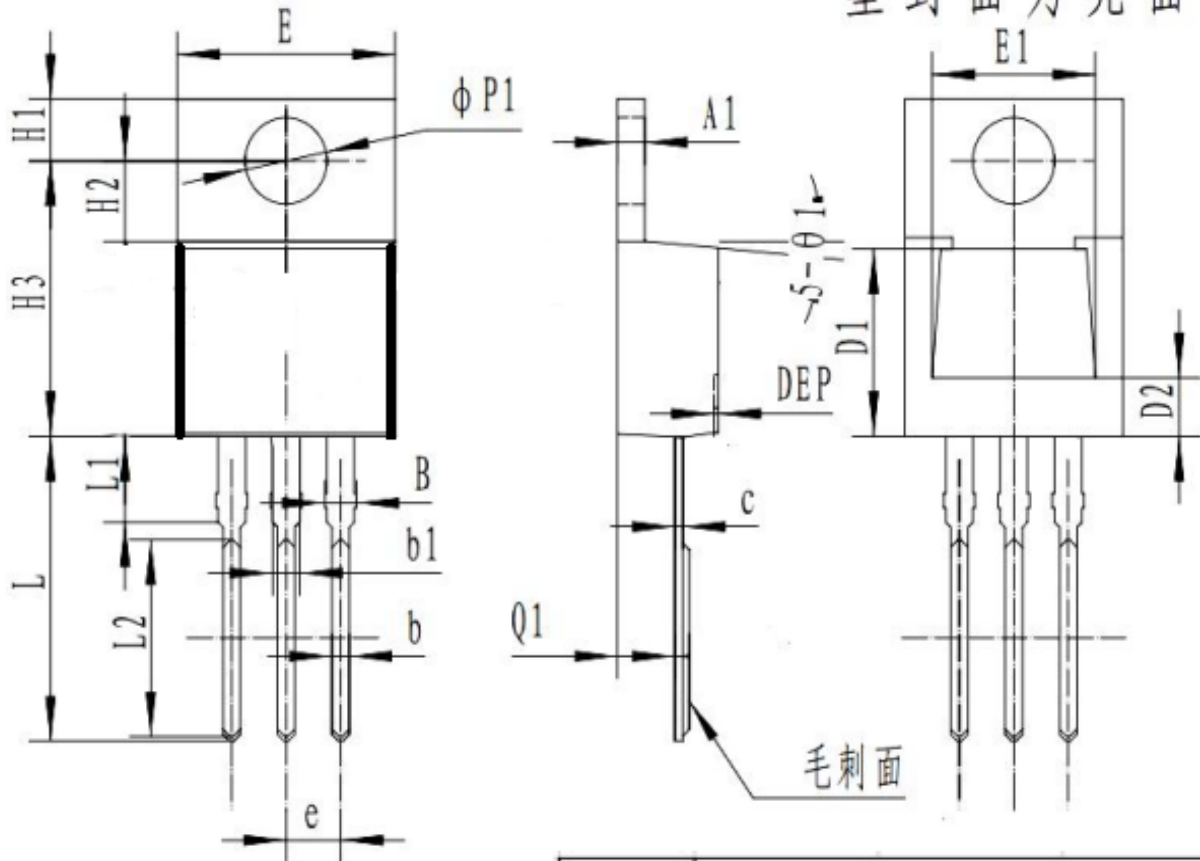
*Pulse test: t_p ≤ 300μs, δ ≤ 0.02.

CLASSIFICATION of h_{FE(1)}

Rank	O	Y
Range	70-140	120-240



塑封面为亮面 0.1



SYMBOL	MM		
	MIN	NOM	MAX
*A	4.60	4.70	4.80
A1	1.22	1.27	1.32
*b	0.76	0.81	0.86
b1	1.22	1.27	1.32
*B	1.27	1.37	1.45
*c	0.33	0.38	0.43
D1	7.60	7.75	7.90
D2	2.50	2.60	2.70
*E	10.00	10.10	10.20
E1	7.70	7.80	7.90
H1	2.64	2.74	2.84
H2	3.46	3.56	3.66
*H3	12.10	12.20	12.30
H4	1.90	2.00	2.10
*e	2.49	2.54	2.59
*L	13.45	3.85	13.85
L1	3.58	3.78	3.98
L2	8.66	8.76	8.86
*Q1	2.59	2.69	2.79
$\theta 1$	3°	5°	7°
$\phi P1$	3.85	3.90	3.95
DEP	0.05	0.10	0.20

带*为检验尺寸