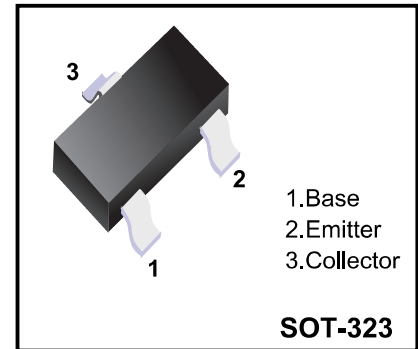


TRANSISTOR (NPN)

FEATURES

- High voltage and high current
- Excellent hFE linearity
- High h_{FE}
- Low noise
- Complementary to 2SA1586W



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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	60	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	150	mA
Collector Power Dissipation	P _C	100	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	1250	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{stg}	-55~+150	°C

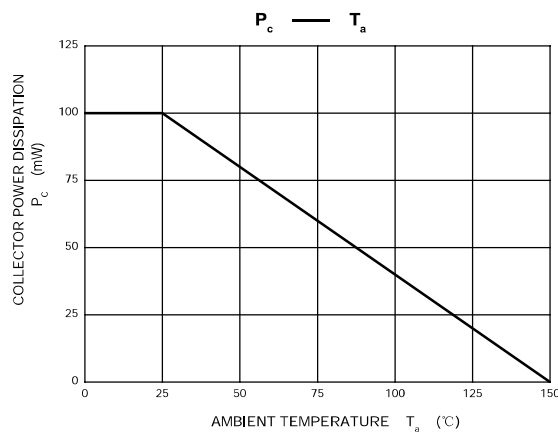
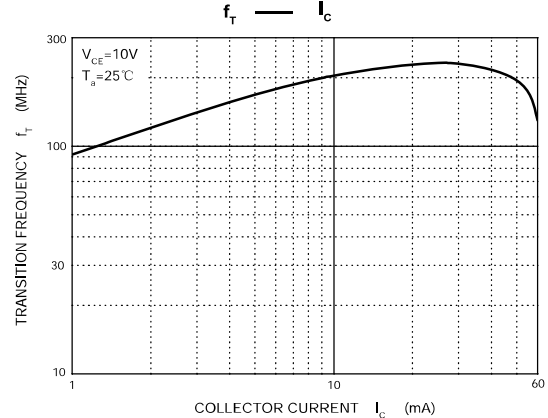
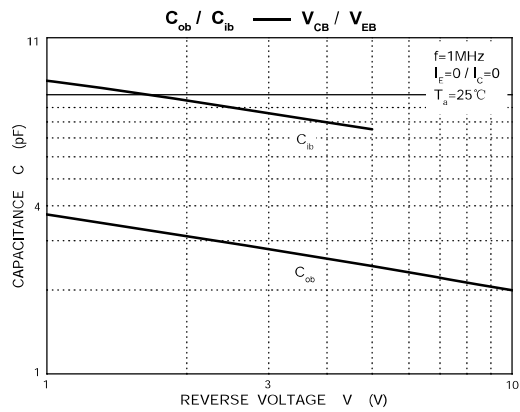
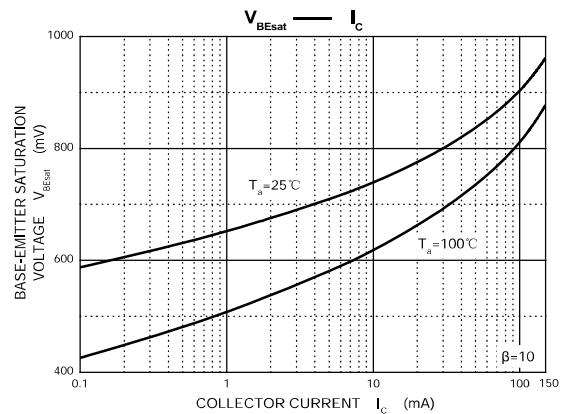
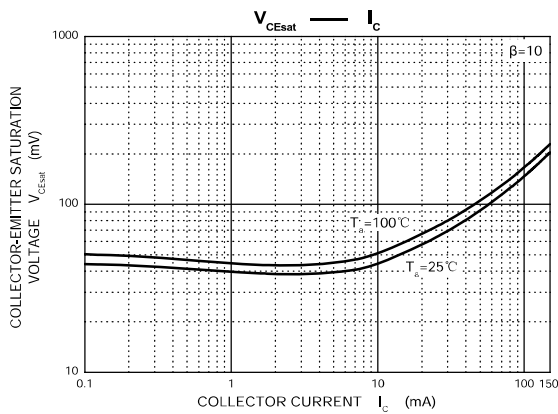
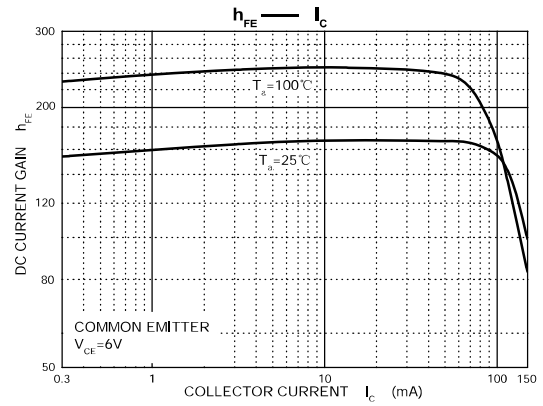
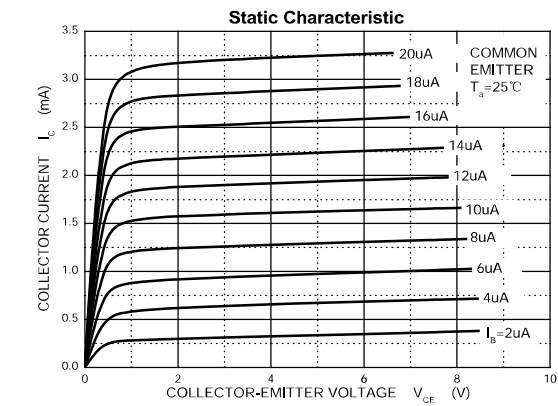
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, 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 _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =6V, I _C =2mA	70		700	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =10mA			0.25	V
Transition frequency	f _T	V _{CE} =10V, I _C =1mA,	80			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			3.5	pF
Noise figure	NF	V _{CE} =6V, I _C =0.1mA, f=1KHz, R _g =10KΩ			10	dB

CLASSIFICATION OF h_{FE}

Rank	2SC4116W-O	2SC4116W-Y	2SC4116W-GR	2SC4116W-BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LG	LL

Typical Characteristics



Ordering information

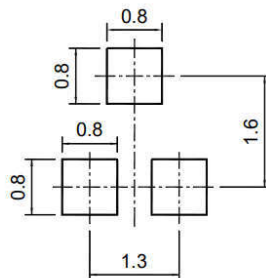
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
E	1.3		51	
E1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



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