

# 2SC5100

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1908)

Application : Audio and General Purpose

**Absolute maximum ratings** (Ta=25°C)

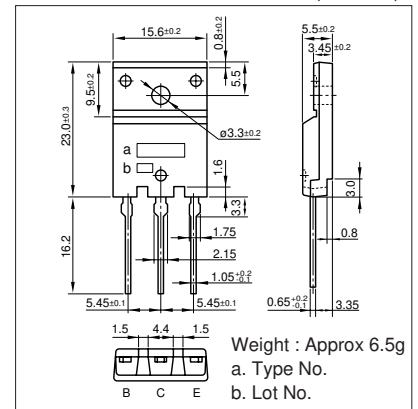
Symbol	2SC5100	Unit
Vcbo	160	V
Vceo	120	V
Vebo	6	V
Ic	8	A
Ib	3	A
Pc	75(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

**Electrical Characteristics** (Ta=25°C)

Symbol	Conditions	2SC5100	Unit
Icbo	Vcb=160V	10max	μA
Iebo	Veb=6V	10max	μA
V(BR)CEO	Ic=50mA	120min	V
hFE	Vce=4V, Ic=3A	50min*	
VCE(sat)	Ic=3A, Ib=0.3A	0.5max	V
fr	Vce=12V, Ie=-0.5A	20typ	MHz
COB	Vcb=10V, f=1MHz	200typ	pF

\*hFE Rank O(50 to 100), P(70 to 140), Y(90 to 180)

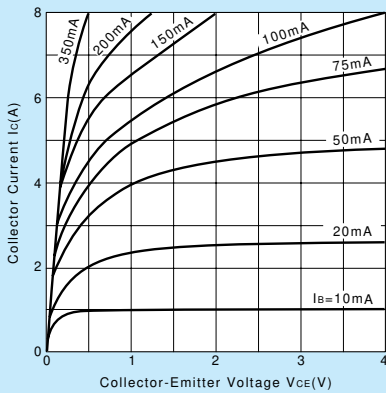
**External Dimensions FM100(TO3PF)**



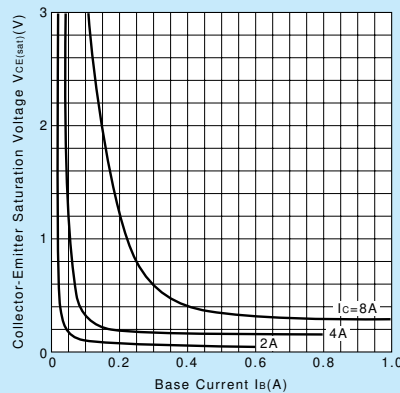
**Typical Switching Characteristics (Common Emitter)**

Vcc (V)	RL (Ω)	Ic (A)	VBB1 (V)	VBB2 (V)	Ib1 (A)	Ib2 (A)	ton (μs)	tstg (μs)	tf (μs)
40	10	4	10	-5	0.4	-0.4	0.13typ	3.50typ	0.32typ

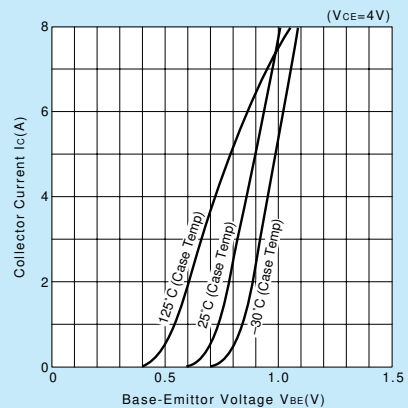
**Ic-Vce Characteristics (Typical)**



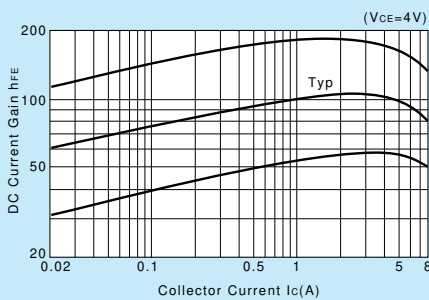
**Vce(sat)-Ib Characteristics (Typical)**



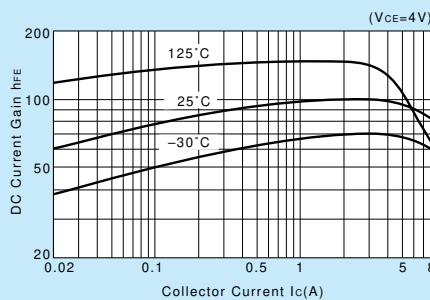
**Ic-Vbe Temperature Characteristics (Typical)**



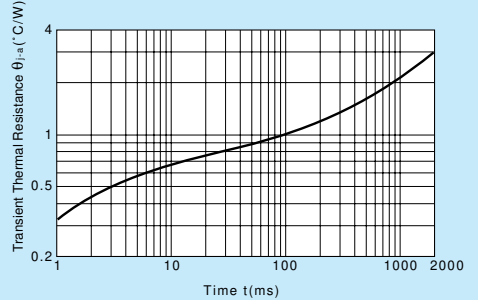
**hFE-Ic Characteristics (Typical)**



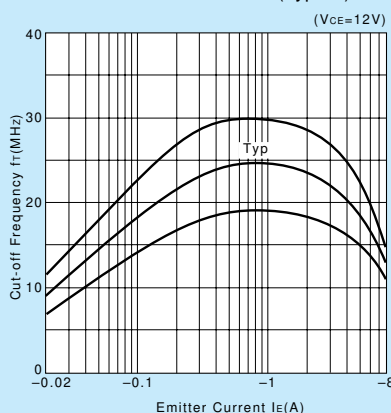
**hFE-Ic Temperature Characteristics (Typical)**



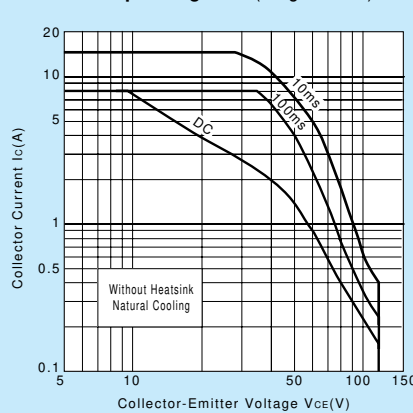
**θj-a-t Characteristics**



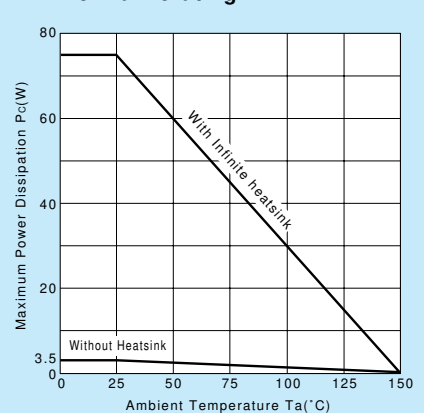
**fr-Ie Characteristics (Typical)**



**Safe Operating Area (Single Pulse)**



**Pc-Ta Derating**



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[www.DatasheetCatalog.com](http://www.DatasheetCatalog.com)

Datasheets for electronic components.