

2SC4153

Silicon NPN Triple Diffused Planar Transistor (Switching Transistor)

Application : Humidifier, DC-DC Converter, and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SC4153	Unit
Vcbo	200	V
Vceo	120	V
Vebo	8	V
Ic	7(Pulse 14)	A
Ib	3	A
Pc	30(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

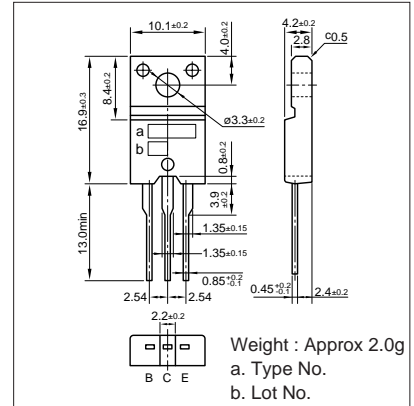
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC4153	Unit
Icbo	Vcb=200V	100max	μA
Iebo	VEB=8V	100max	μA
V(BR)CEO	Ic=50mA	120min	V
hFE	VCE=4V, Ic=3A	70 to 220	
VCE(sat)	Ic=3A, Ib=0.3A	0.5max	V
VBE(sat)	Ic=3A, Ib=0.3A	1.2max	V
fT	VCE=12V, IE=-0.5A	30typ	MHz
COB	Vcb=10V, f=1MHz	110typ	pF

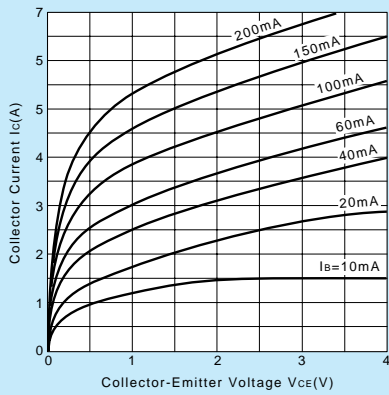
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	Ic (A)	VBB1 (V)	VBB2 (V)	Ib1 (A)	Ib2 (A)	ton (μs)	tstg (μs)	tf (μs)
50	16.7	3	10	-5	0.3	-0.6	0.5max	3max	0.5max

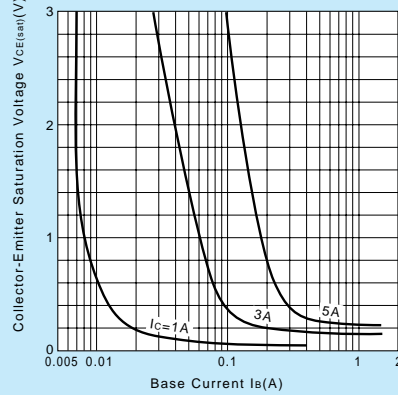
External Dimensions FM20(TO220F)



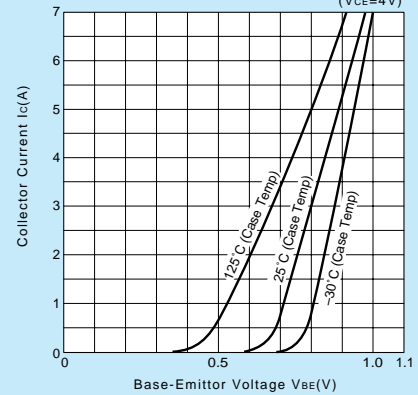
Ic-VCE Characteristics (Typical)



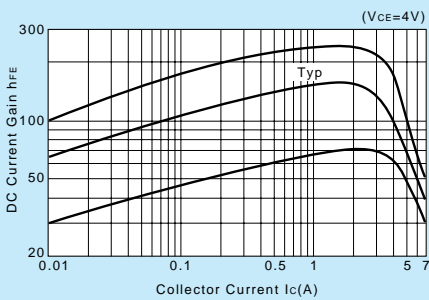
VCE(sat)-Ib Characteristics (Typical)



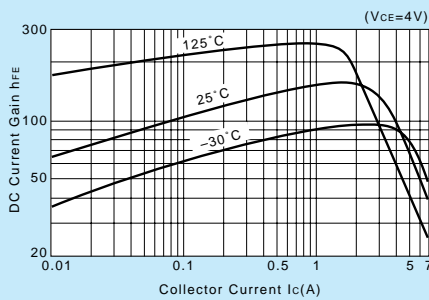
Ic-VBE Temperature Characteristics (Typical)



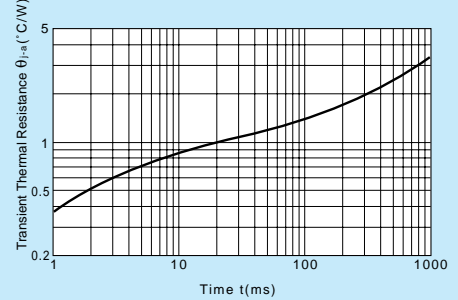
hFE-Ic Characteristics (Typical)



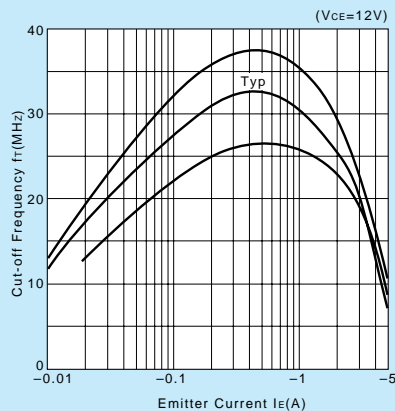
hFE-Ic Temperature Characteristics (Typical)



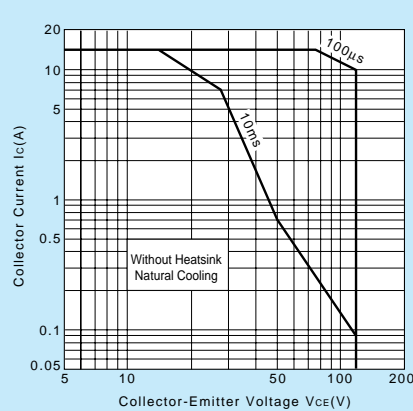
θj-a-t Characteristics



fT-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

