

# 2SC4381/4382

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1667/1668) Application : TV Vertical Output, Audio Output Driver and General Purpose

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

Symbol	2SC4381	2SC4382	Unit
Vcbo	150	200	V
Vceo	150	200	V
Vebo	6		V
Ic	2		A
Ib	1		A
Pc	25(Tc=25°C)		W
Tj	150		°C
Tstg	-55 to +150		°C

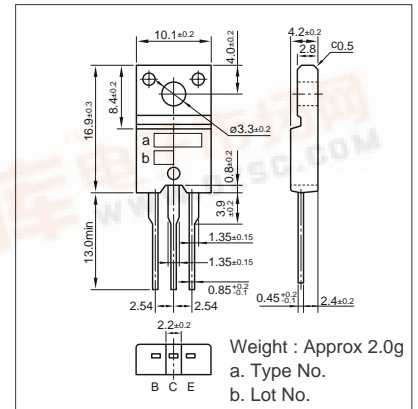
**Electrical Characteristics** (Ta=25°C)

Symbol	Conditions	2SC4381	2SC4382	Unit
Icbo		10max		μA
	Vcb=	150	200	V
Iebo	VEB=6V	10max		μA
V(BR)CEO	Ic=25mA	150min	200min	V
hFE	VCE=10V, Ic=0.7A	60min		
VCE(sat)	Ic=0.7A, Ib=0.07A	1.0max		V
fr	VCE=12V, IE=-0.2A	15typ		MHz
COB	VCB=10V, f=1MHz	35typ		pF

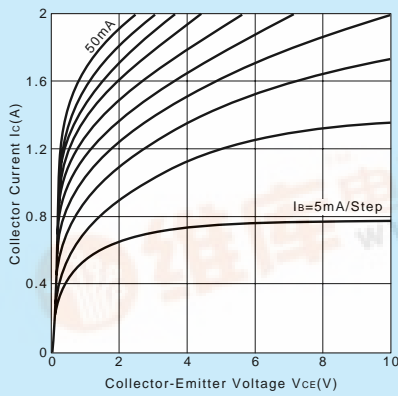
**Typical Switching Characteristics (Common Emitter)**

Vcc (V)	RL (Ω)	Ic (A)	VBB1 (V)	VBB2 (V)	Ib1 (mA)	Ib2 (mA)	ton (μs)	tstg (μs)	tf (μs)
20	20	1	10	-5	100	-100	1.0typ	3.0typ	1.5typ

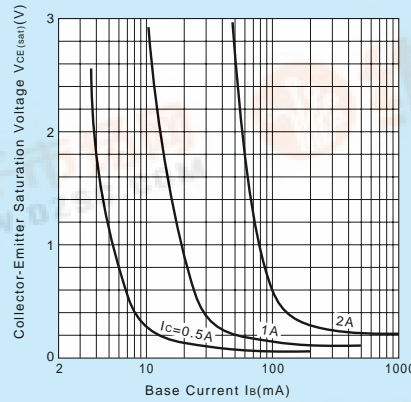
**External Dimensions FM20(TO220F)**



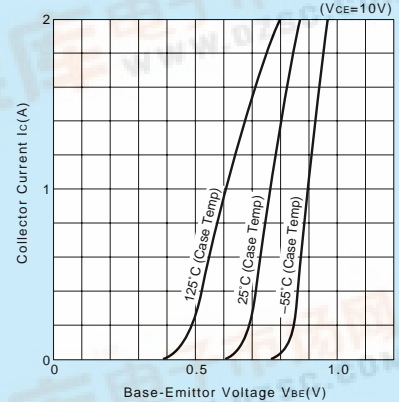
**Ic-VCE Characteristics (Typical)**



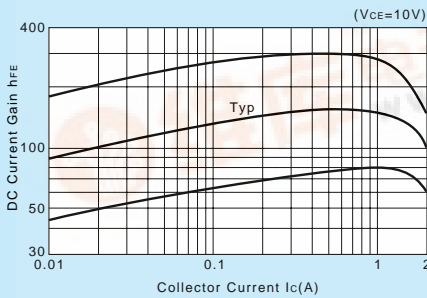
**VCE(sat)-Ib Characteristics (Typical)**



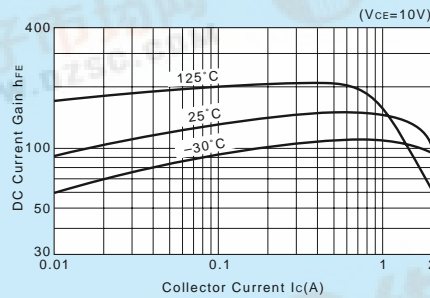
**Ic-VBE Temperature Characteristics (Typical)**



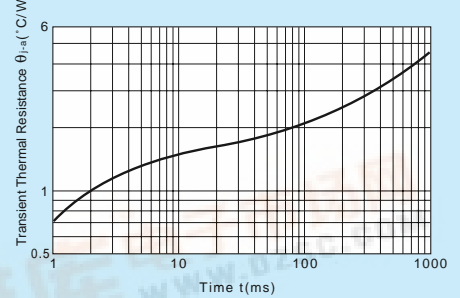
**hFE-Ic Characteristics (Typical)**



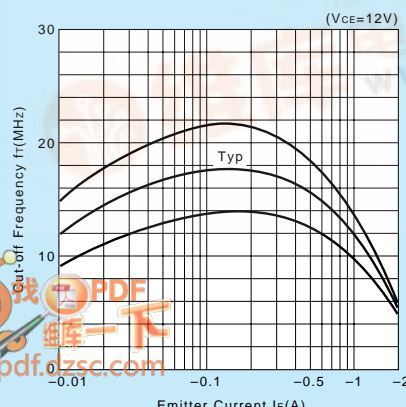
**hFE-Ic Temperature Characteristics (Typical)**



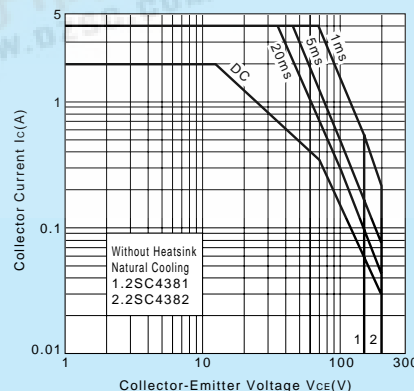
**θj-a-t Characteristics**



**fT-Ic Characteristics (Typical)**



**Safe Operating Area (Single Pulse)**



**Pc-Ta Derating**

