# 2SA1667/1668

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC4381/4382)

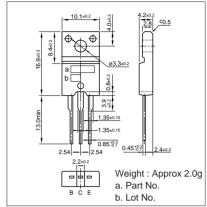
Application: TV Vertical Output, Audio Output Driver and General Purpose

# ■Absolute maximum ratings (Ta=25°C) ■Electrical Characteristics

Symbol	Ra	Unit	
Symbol	2SA1667 2SA1668		
Vсво	-150 -200		V
VCEO	-150 -200		V
VEBO	-(	V	
Ic	-:	А	
Ів	-1		А
Pc	25(Tc=25°C)		W
Tj	15	°C	
Tsta	_55 to ±150		۰٫

Cumbal	Conditions		Ra	1.1	
Symbol			2SA1667	2SA1668	Unit
Ісво			-10max	-10max	μΑ
ICBO		Vcb=	-150	-200	V
ІЕВО	VE	3=-6V	-10	max	μΑ
V(BR)CEO	Ic=-25mA		-150min	-200min	V
hfe	Vce=-10	V, Ic=-0.7A	60	min	
Vce(sat)	Ic=-0.7A, IB=-0.07A		-1.0max		V
f⊤	Vce=-12	2V, IE=0.2A	20	typ	MHz
Сов	VcB=-10	OV, f=1MHz	60typ		pF

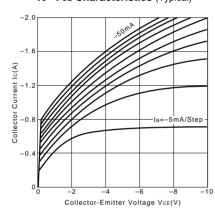
### (Ta=25°C) External Dimensions FM20 (TO220F)



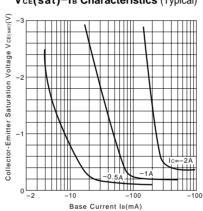
## ■Typical Switching Characteristics (Common Emitter)

Vcc (V)	RL (Ω)	Ic (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>B1</sub> (mA)	I <sub>B2</sub> (mA)	ton (µs)	tstg (µs)	tf (µs)
-20	20	-1	-10	5	-100	100	0.4typ	1.5typ	0.5typ

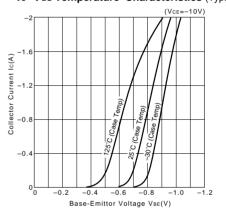
# Ic-VcE Characteristics (Typical)



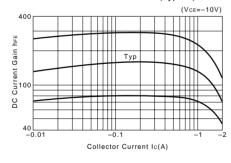
VcE(sat)-IB Characteristics (Typical)



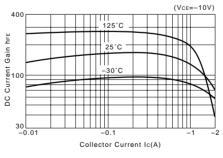
Ic-VBE Temperature Characteristics (Typical)



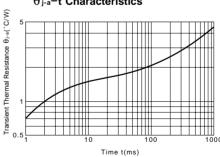
hfe-Ic Characteristics (Typical)



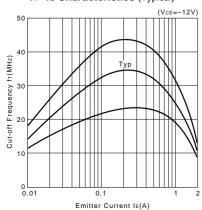
hfe-Ic Temperature Characteristics (Typical)



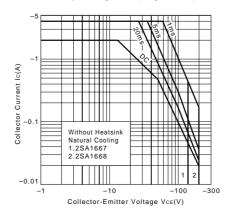
θ<sub>j-a</sub>−t Characteristics



fT-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

