

2SC4558

Absolute Maximum Ratings

(Ta=25°C)

Symbol	2SC4558	Unit
V _{CB0}	100	V
V _{CE0}	80	V
V _{EB0}	6	V
I _C	6 (Pulse 10)	A
I _B	3	A
P _C	30 (T _C = 25°C)	W
T _J	150	°C
T _{stg}	-55~+150	°C

Silicon NPN Triple Diffused Planar

☆ High h_{FE} and Low V_{CE(sat)} Transistor

T-33-09

Application Example :
Series Regulator, Solenoid Driver, and
General Purpose

● Outline Drawing 4FM20

Electrical Characteristics

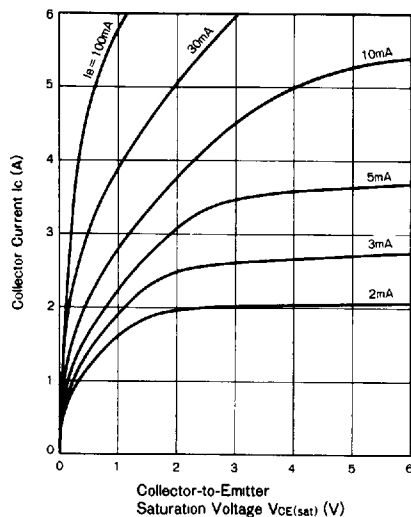
(Ta=25°C)

Symbol	Conditions	2SC4558	Unit
I _{CB0}	V _{CB} =100V	10max	μA
I _{EB0}	V _{EB} =6V	10max	μA
V _{BRICE0}	I _C = 25mA	80min	V
h _{FE1}	V _{CE} =4V, I _C =0.5A	700min	
h _{FE2}	V _{CE} =4A, I _C =3A	300min	
V _{CE(sat)}	I _C = 3A, I _B =60mA	0.4max	V
V _{BE(sat)}	I _C = 3A, I _B =60mA	1.5max	V
f _T	V _{CE} =12V, I _E = -0.5A	30typ	MHz

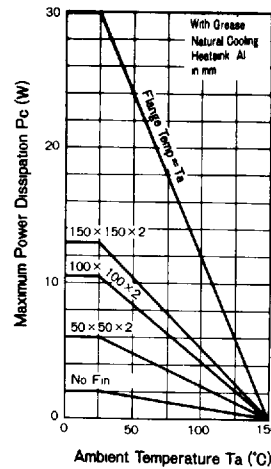
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	I _{B2} (A)	t _{on} (μs)	t _{stg} (μs)	t _r (μs)
30	10	3	10	-5	30	-30	0.9typ	5.0typ	1.5typ

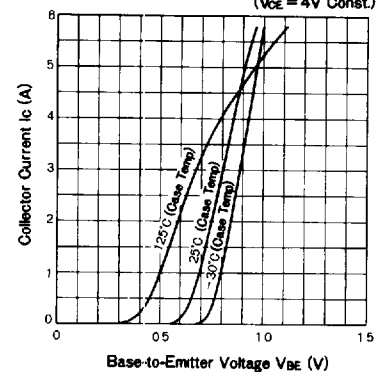
I_C - V_{CE} Characteristics (Typical Value)



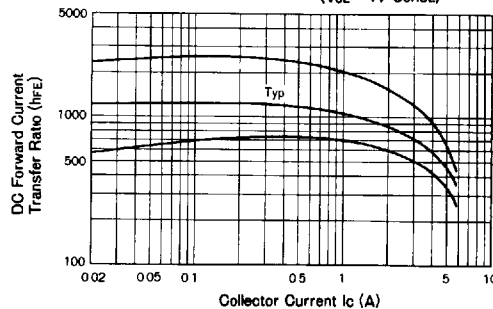
Power Derating



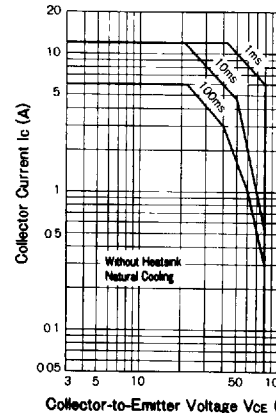
Temperature Characteristics

(V_{CE} = 4V Const.)

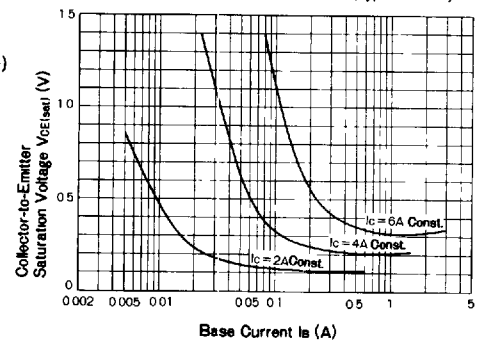
DC Current Gain Characteristics

(V_{CE} = 4V Const.)

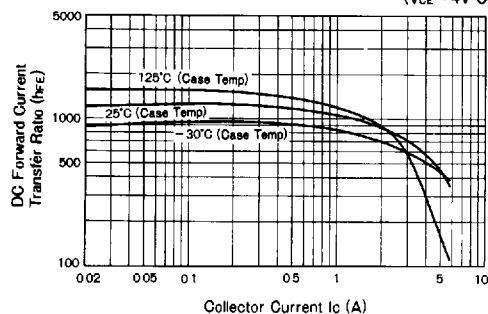
Maximum Areas For Safe Operation (ASO) (Single Pulse)



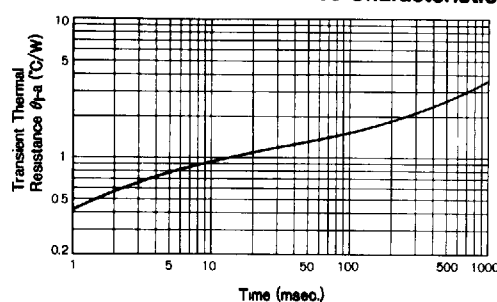
V_{CE(sat)} - I_B Characteristics (Typical Value)



DC Current Gain Temperature Characteristics

(V_{CE} = 4V Const.)

Transient Thermal Resistance Characteristics



t_{on} · t_{stg} · t_r - I_C Characteristics

(Typical Value)

