ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number:	2SC3858
Manufacturer:	Sanken Electric USA Inc.
Package:	3-ESIP
Availability:	Please confirm with sales

Product Page:

https://antrexco.com/product/details/sanken-electric-usa-inc/2sc3858.html

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Contact Information

Email: info@antrexco.com

WhatsApp: +86-186-8066-5326

Website: https://antrexco.com

Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

2SC3858

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1494)

Application : Audio and General Purpose

■Absolute maximum ratings (Ta=25°C)

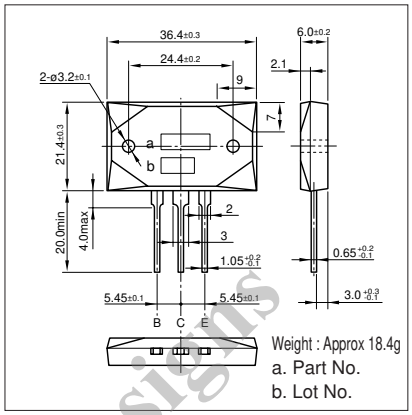
Symbol	Ratings	Unit
V_{CBO}	200	V
V_{CEO}	200	V
V_{EBO}	6	V
I_C	17	A
I_B	5	A
P_C	200(Tc=25°C)	W
Tj	150	°C
Tstg	–55 to +150	°C

■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I_{CBO}	V_{CB}=200V	100max	μA
I_{EBO}	V_{EB}=6V	100max	μA
$V_{(BR)CEO}$	I_C=50mA	200min	V
h_{FE}	V_{CE}=4V, I_C=8A	50min*	
$V_{CE(sat)}$	I_C=10A, I_B=1A	2.5max	V
f_T	V_{CE}=12V, I_E=–1A	20typ	MHz
C_{OB}	V_{CB}=10V, f=1MHz	300typ	pF

*h_{FE} Rank Y(50 to 100), P(70 to 140), G(90 to 180)

External Dimensions MT-200

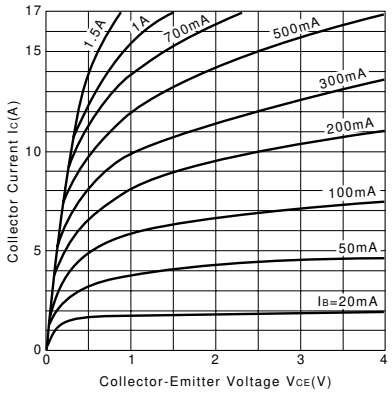


Weight : Approx 18.4g
a. Part No.
b. Lot No.

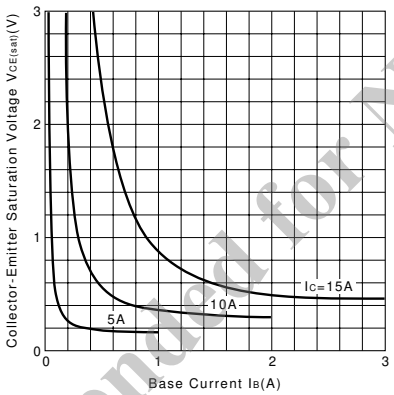
■Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)	ton (μs)	tstg (μs)	tf (μs)
40	4	10	10	–5	1	–1	0.5typ	1.8typ	0.6typ

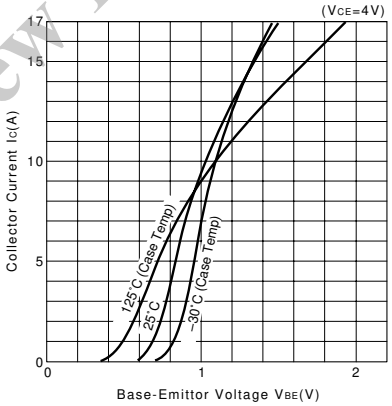
I_C–V_{CE} Characteristics (Typical)



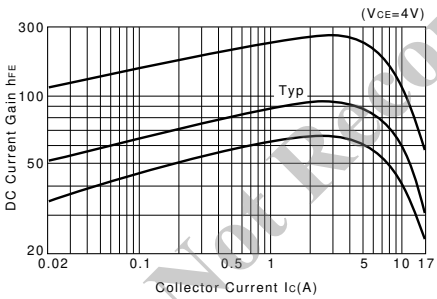
$V_{CE(sat)}$–I_B Characteristics (Typical)



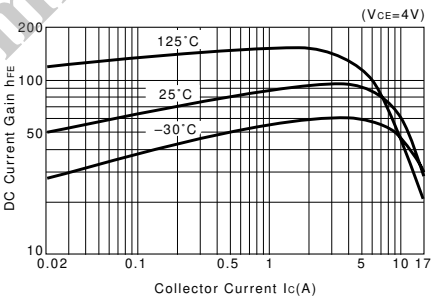
I_C–V_{BE} Temperature Characteristics (Typical)



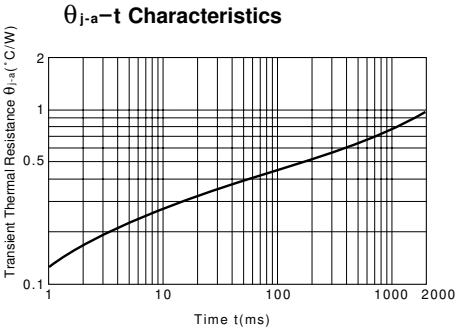
h_{FE}–I_C Characteristics (Typical)



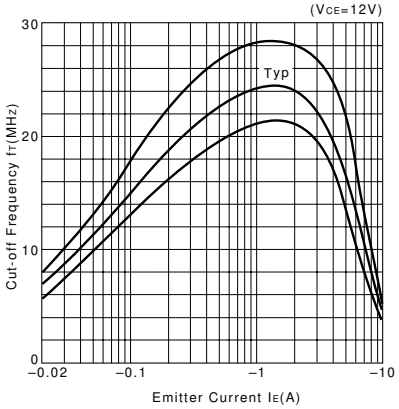
h_{FE}–I_C Temperature Characteristics (Typical)



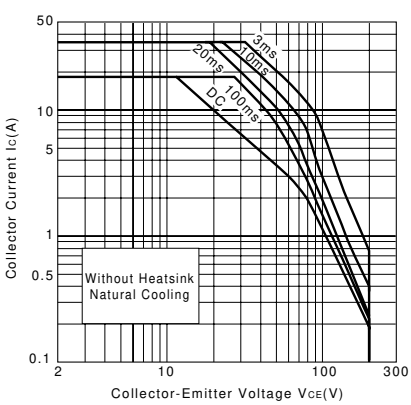
$\theta_{j\text{-}a}$–t Characteristics



f_T–I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc–Ta Derating