2SC3857

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1493)

Application: Audio and General Purpose

Absolute maximum ratings (1a=25 C)							
Symbol	2SC3857	Unit					
Vсво	200	V					
VCEO	200	V					
VEBO	6	V					
Ic	15	А					
Ів	5	А					
Pc	150(Tc=25°C)	W					

150

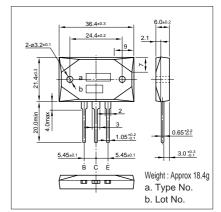
-55 to +150

Τj

Tstg

Electrical C	haracteristics	(Ta=25°C)					
Symbol	Conditions	2SC3857	Unit				
Ісво	VcB=200V	100max	μΑ				
IEBO	VEB=6V	100max	μΑ				
V(BR)CEO	Ic=50mA	200min	V				
hfe	Vce=4V, Ic=5A	50min*					
Vce(sat)	Ic=10A, IB=1A	3.0max	V				
fT	Vce=12V, Ie=-0.5A	20typ	MHz				
Сов	VcB=10V, f=1MHz	250typ	pF				
*hre Rank \overline{O} (50 to 100), P(70 to 140), Y(90 to 180)							

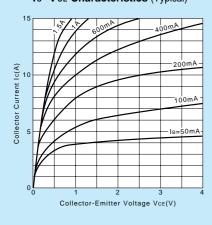
External Dimensions MT-200



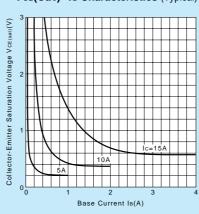
Typical Switching Characteristics (Common Emitter)

Vcc (V)	RL (Ω)	Ic (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	IB2 (A)	ton (µs)	tstg (µs)	tf (µs)
60	12	5	10	-5	0.5	-0.5	0.3typ	2.4typ	0.4typ

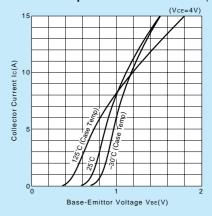
Ic-VcE Characteristics (Typical)



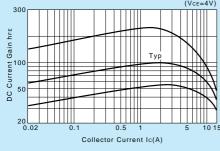
VcE(sat)-IB Characteristics (Typical)



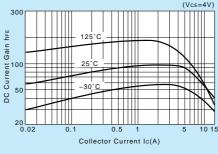
Ic-VBE Temperature Characteristics (Typical)



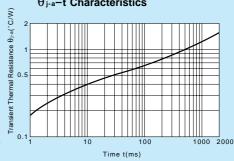
hfe-Ic Characteristics (Typical)



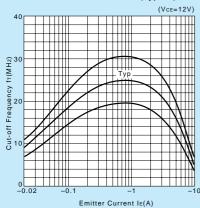
hfe-Ic Temperature Characteristics (Typical)



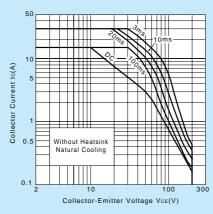
θ_{j-a}-t Characteristics



fT-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

