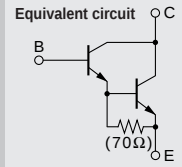


Darlington

2SD2561



Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SB1648)

Application : Audio, Series Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
VCBO	150	V
VCEO	150	V
VEBO	5	V
IC	17	A
IB	1	A
PC	200(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

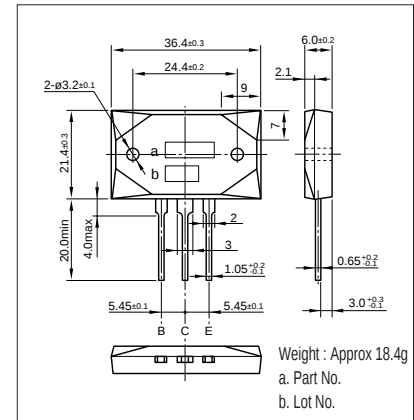
Symbol	Conditions	Ratings	Unit
ICBO	V _{CB} =150V	100max	μA
IEBO	V _{EB} =5V	100max	μA
V(BR)CEO	I _C =30mA	150min	V
hFE	V _{CE} =4V, I _C =10A	5000min*	
VCE(sat)	I _C =10A, I _B =10mA	2.5max	V
VBE(sat)	I _C =10A, I _B =10mA	3.0max	V
fr	V _{CE} =12V, I _E =-2A	70typ	MHz
COB	V _{CB} =10V, f=1MHz	120typ	pF

*hFE Rank: O(5000 to 12000), P(6500 to 20000), Y(15000 to 30000)

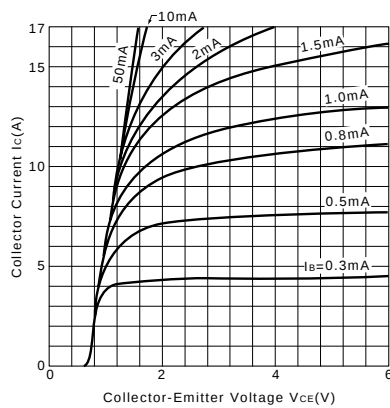
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (mA)	IB2 (mA)	ton (μs)	tstg (μs)	tf (μs)
40	4	10	10	-5	10	-10	0.8typ	4.0typ	1.2typ

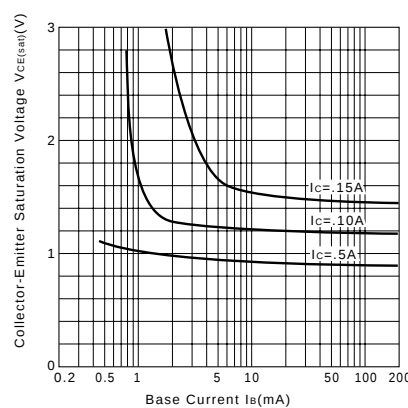
External Dimensions MT-200



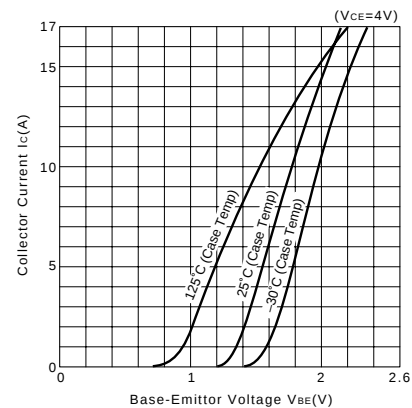
IC-VCE Characteristics (Typical)



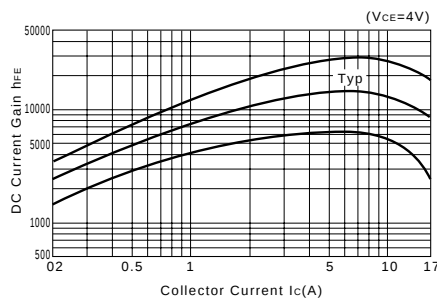
VCE(sat)-IB Characteristics (Typical)



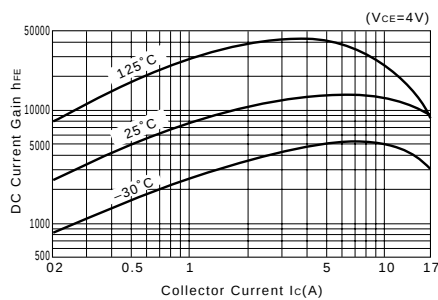
IC-VBE Temperature Characteristics (Typical)



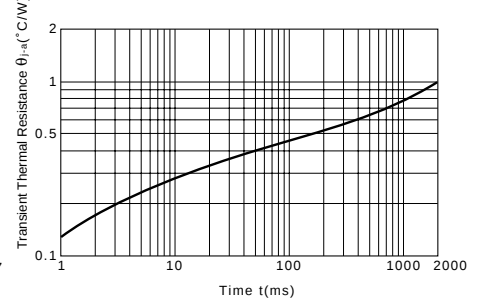
hFE-IC Characteristics (Typical)



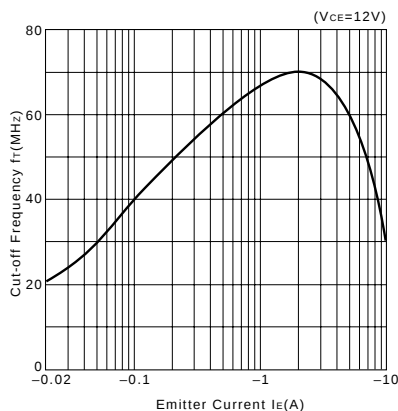
hFE-IC Temperature Characteristics (Typical)



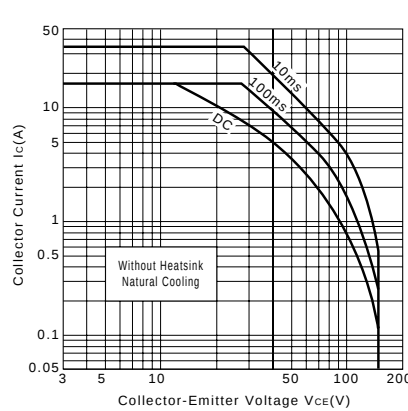
θj-a-t Characteristics



fT-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



PC-Ta Derating

