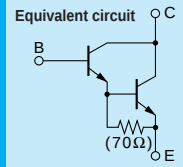


Darlington

2SD2390



Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SB1560)

Application : Audio, Series Regulator and General Purpose

■ Absolute maximum ratings (Ta=25°C)

Symbol	2SD2390	Unit
VCBO	160	V
VCEO	150	V
VEBO	5	V
IC	10	A
IB	1	A
PC	100(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

■ Electrical Characteristics (Ta=25°C)

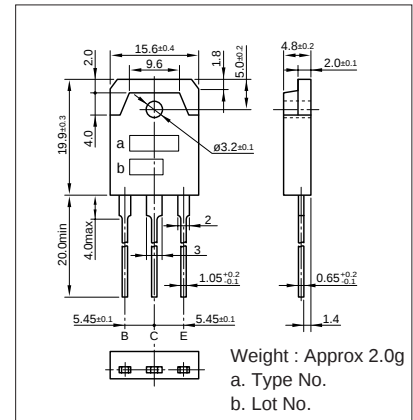
Symbol	Conditions	2SD2390	Unit
ICBO	V _{CB} =160V	100max	μA
IEBO	V _{EB} =5V	100max	μA
V(BR)CEO	I _C =30mA	150min	V
hFE	V _{CE} =4V, I _C =7A	5000min*	
VCE(sat)	I _C =7A, I _B =7mA	2.5max	V
VBE(sat)	I _C =7A, I _B =7mA	3.0max	V
f _T	V _{CE} =12V, I _E =-2A	55typ	MHz
COB	V _{CB} =10V, f=1MHz	95typ	pF

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

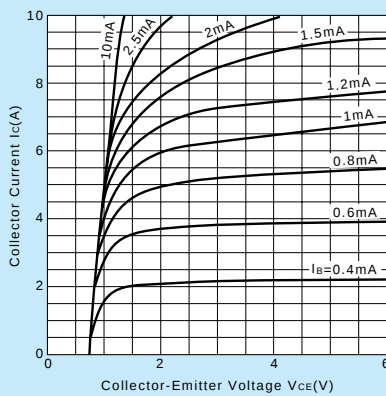
■ Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (mA)	IB2 (mA)	ton (μs)	tstg (μs)	tf (μs)
70	10	7	10	-5	7	-7	0.5typ	10.0typ	1.1typ

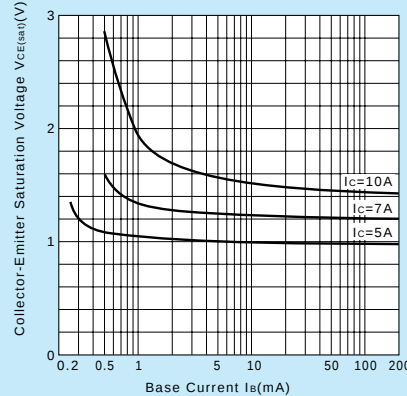
External Dimensions MT-100(TO3P)



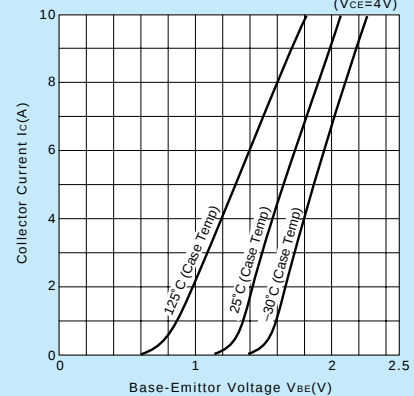
IC-VCE Characteristics (Typical)



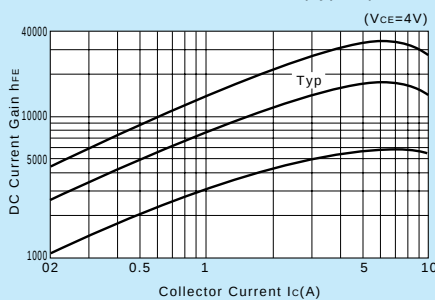
VCE(sat)-IB Characteristics (Typical)



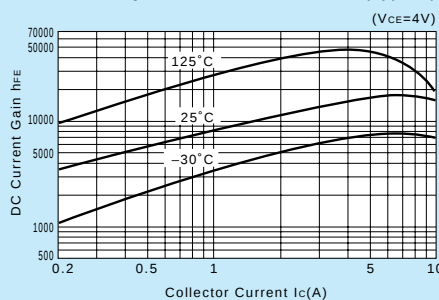
IC-VBE Temperature Characteristics (Typical)



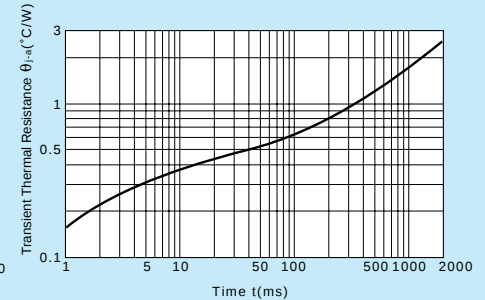
hFE-IC Characteristics (Typical)



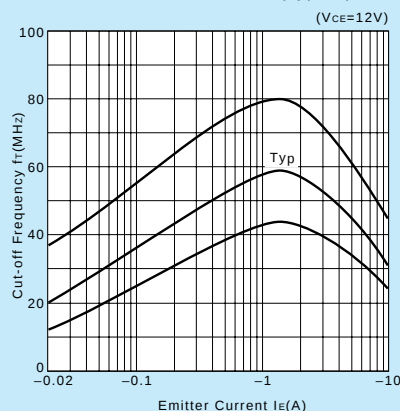
hFE-IC Temperature Characteristics (Typical)



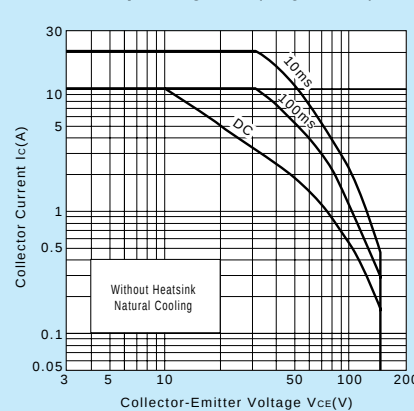
θja-t Characteristics



fT-IE Characteristics (Typical)



Safe Operating Area (Single Pulse)



PC-Ta Derating

