

2SC3890

Silicon NPN Triple Diffused Planar Transistor (High Voltage and High Speed Switching Transistor)

Application : Switching Regulator and General Purpose

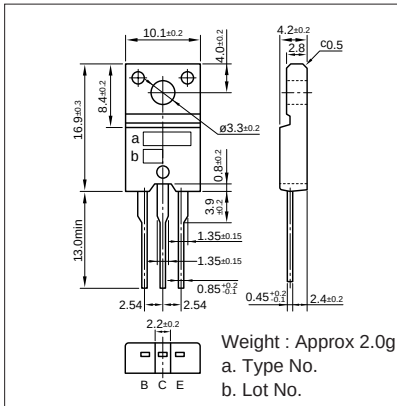
Absolute maximum ratings (Ta=25°C)

Symbol	2SC3890	Unit
VCBO	500	V
VCEO	400	V
VEBO	10	V
IC	7(Pulse14)	A
IB	2	A
PC	30(Tc=25°C)	W
TJ	150	°C
Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC3890	Unit
ICBO	VCB=500V	100max	μA
IEBO	VEB=10V	100max	μA
V(BR)CEO	IC=25mA	400min	V
hFE	VCE=4V, IC=3A	10 to 30	
VCE(sat)	IC=3A, IB=0.6A	0.5max	V
VBE(sat)	IC=3A, IB=0.6A	1.3max	V
fr	VCE=12V, IE=-0.5A	10typ	MHz
COB	VCB=10V, f=1MHz	50typ	pF

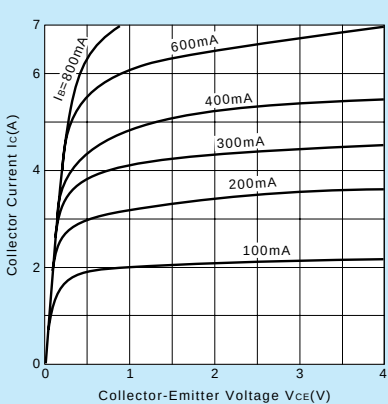
External Dimensions FM20(TO220F)



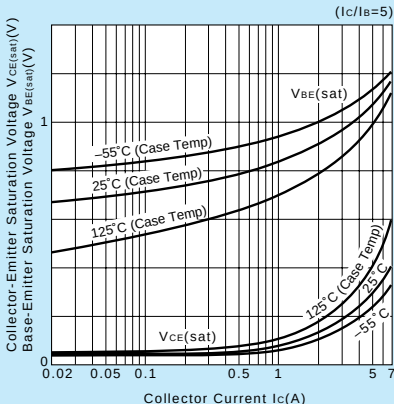
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (A)	IB2 (A)	ton (μs)	tstg (μs)	tf (μs)
200	66	3	10	-5	0.3	-0.6	1max	3max	0.5max

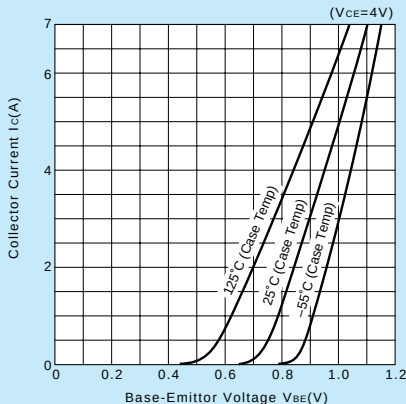
IC-VCE Characteristics (Typical)



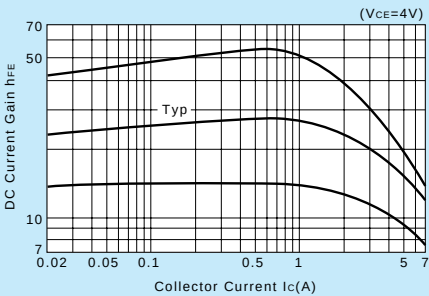
VCE(sat), VBE(sat)-IC Temperature Characteristics (Typical)



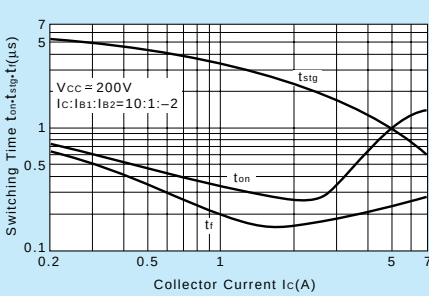
IC-VBE Temperature Characteristics (Typical)



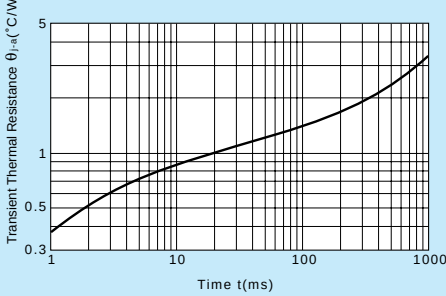
hFE-IC Characteristics (Typical)



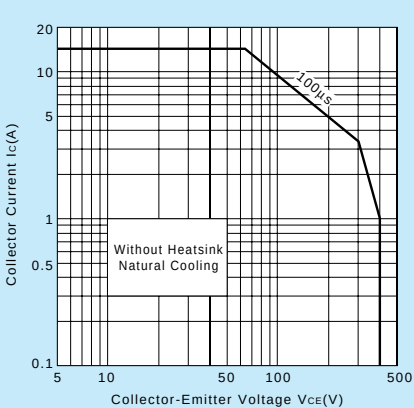
ton, tstg, tr-IC Characteristics (Typical)



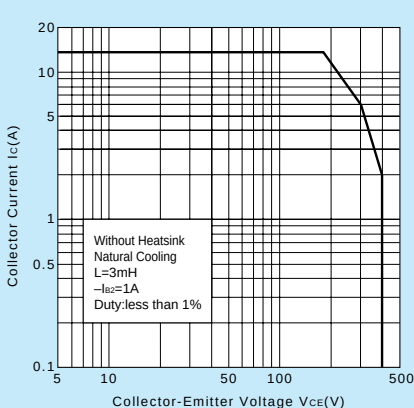
θJA-t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



PC-Ta Derating

