

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

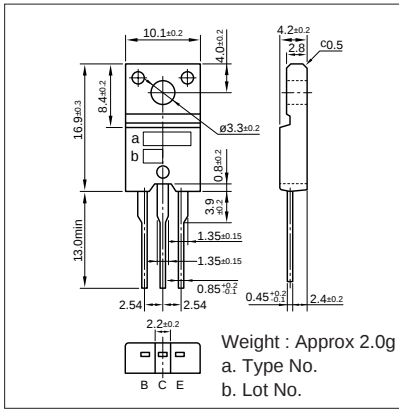
■ Electrical Characteristics (Ta=25°C)

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

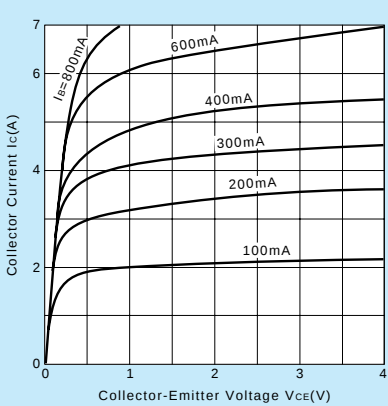
■ Typical Switching Characteristics (Common Emitter)

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

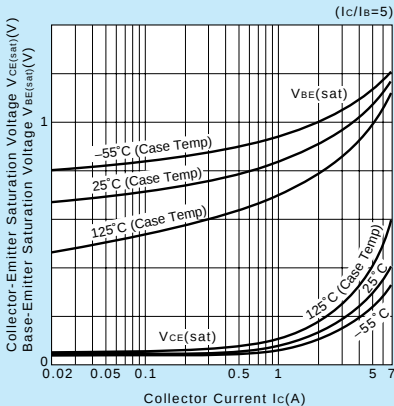
External Dimensions FM20(TO220F)



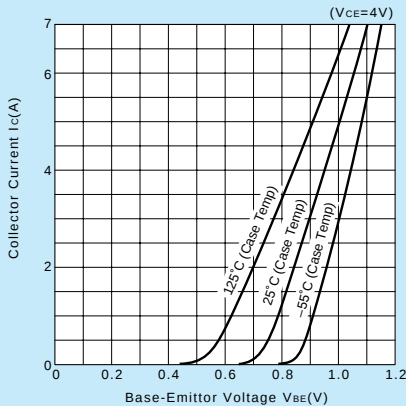
IC-VCE Characteristics (Typical)



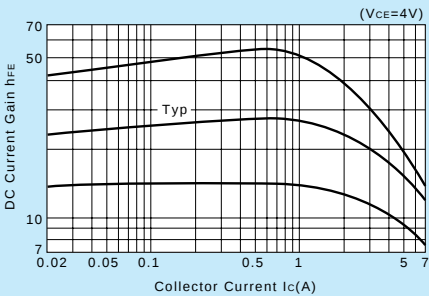
VCE(sat), VBE(sat)-IC Temperature Characteristics (Typical)



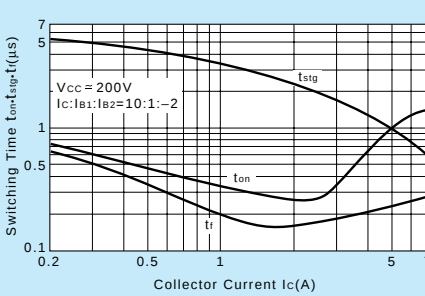
IC-VBE Temperature Characteristics (Typical)



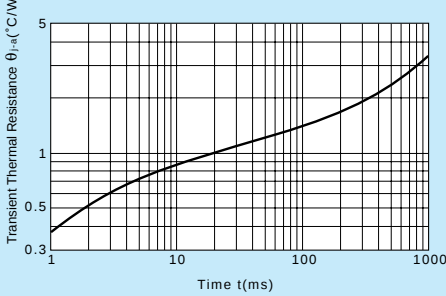
hFE-IC Characteristics (Typical)



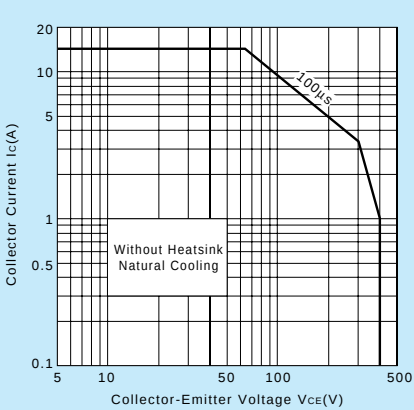
ton•tstg•tr-IC Characteristics (Typical)



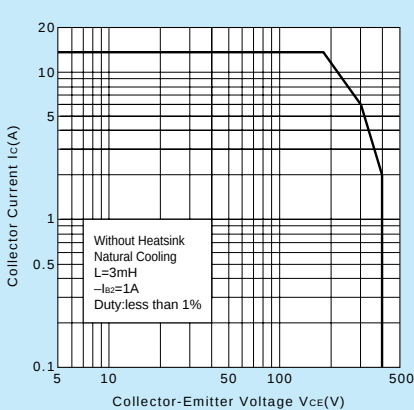
θJA-t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



PC-Ta Derating

