

2SC3927

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

Application : Switching Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
VcBO	900	V
VCEO	550	V
VEBO	7	V
Ic	10(Pulse15)	A
IB	5	A
Pc	120(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

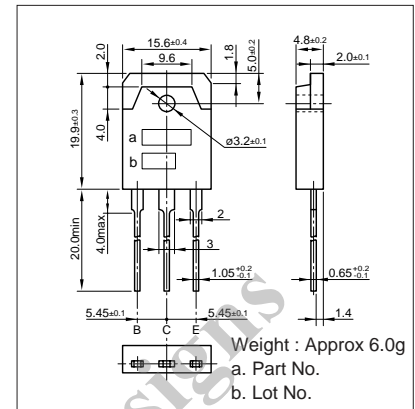
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
IcBO	VcB=800V	100max	μA
IEBO	VEB=7V	100max	μA
V(BR)CEO	Ic=10mA	550min	V
hFE	VCE=4V, Ic=5A	10 to 28	
VCE(sat)	Ic=5A, IB=1A	0.5max	V
VBE(sat)	Ic=5A, IB=1A	1.2max	V
fr	VCE=12V, IE=-1A	6typ	MHz
COB	VcB=10V, f=1MHz	105typ	pF

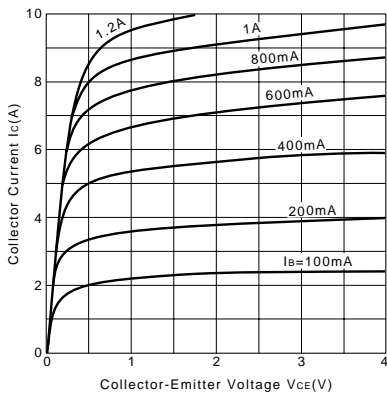
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	Ic (A)	VBB1 (V)	VBB2 (V)	IB1 (A)	IB2 (A)	ton (μs)	tstg (μs)	tf (μs)
250	50	5	10	-5	0.75	-1.5	1max	5max	0.5max

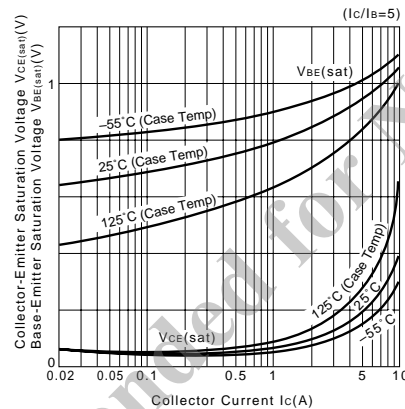
External Dimensions MT-100(TO3P)



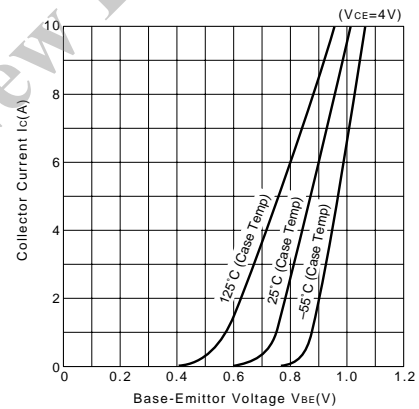
Ic-VCE Characteristics (Typical)



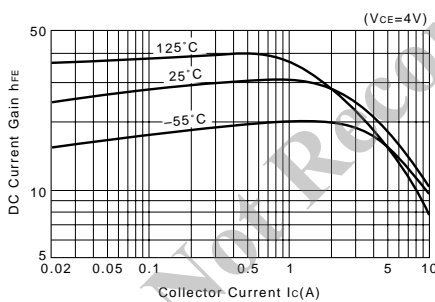
Vce(sat), Vbe(sat)-Ic Temperature Characteristics (Typical)



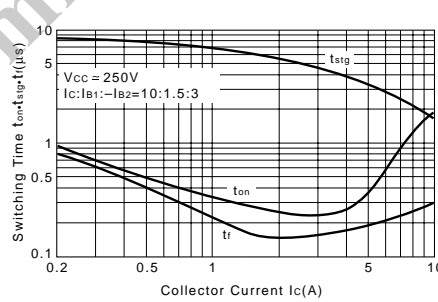
Ic-VBE Temperature Characteristics (Typical)



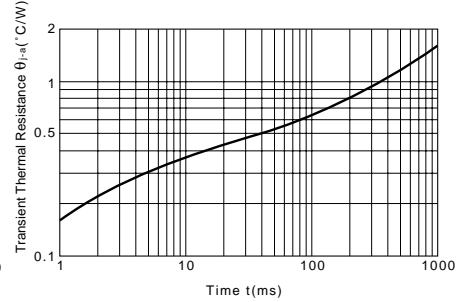
hFE-Ic Characteristics (Typical)



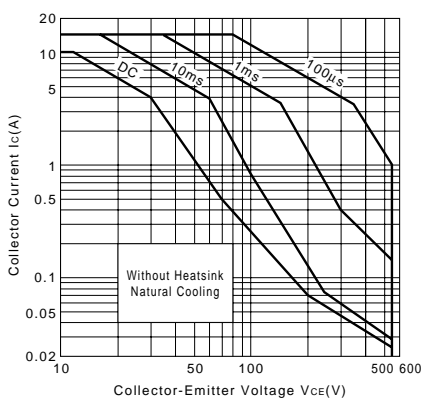
ton, tstg, tr-Ic Characteristics (Typical)



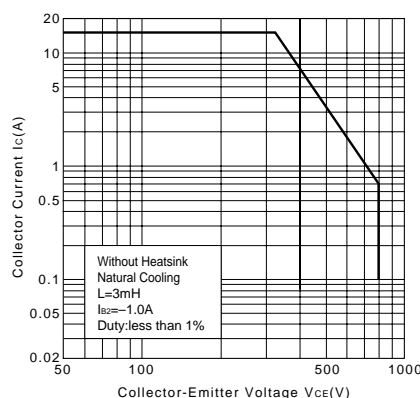
θj-a-t Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



Pc-Ta Derating

