

# 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

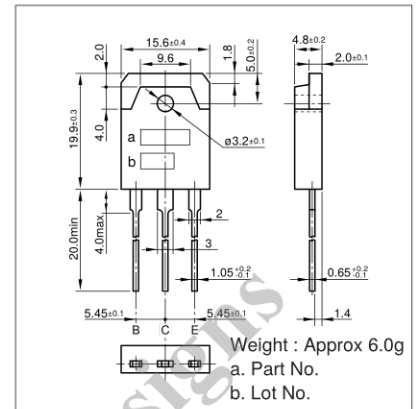
### Electrical Characteristics (Ta=25°C)

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

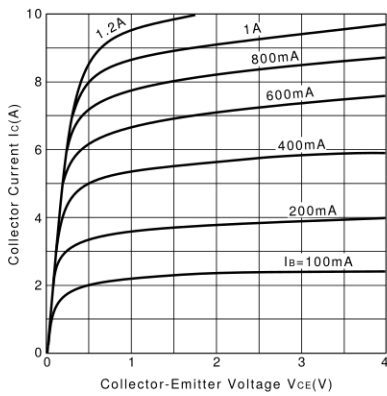
### Typical Switching Characteristics (Common Emitter)

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

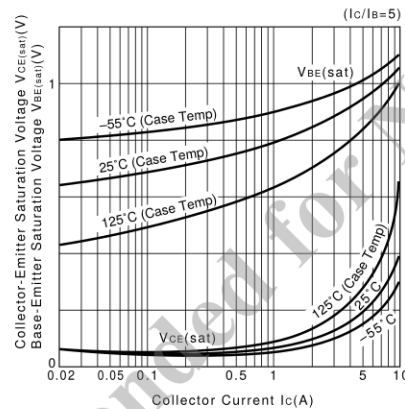
### External Dimensions MT-100(TO3P)



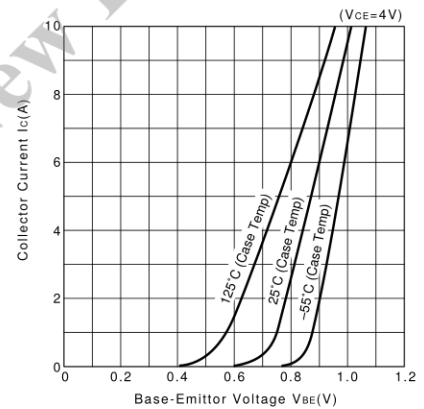
### Ic-VCE Characteristics (Typical)



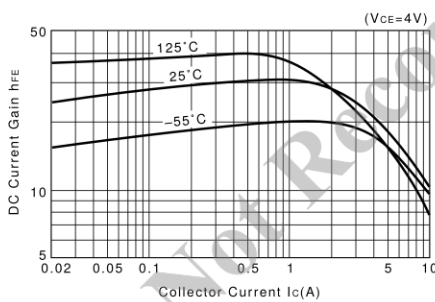
### VCE(sat), VBE(sat)-Ic Temperature Characteristics (Typical)



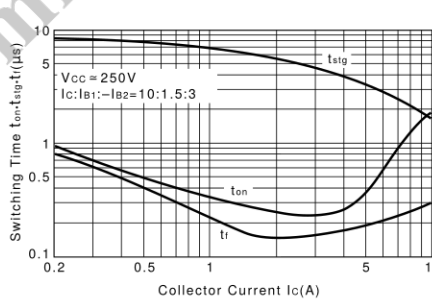
### Ic-VBE Temperature Characteristics (Typical)



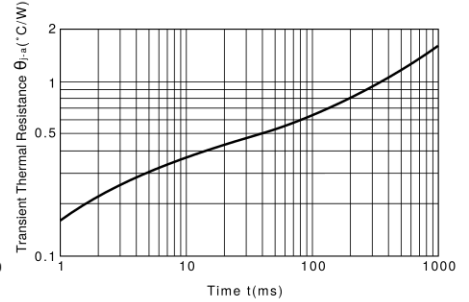
### hFE-Ic Characteristics (Typical)



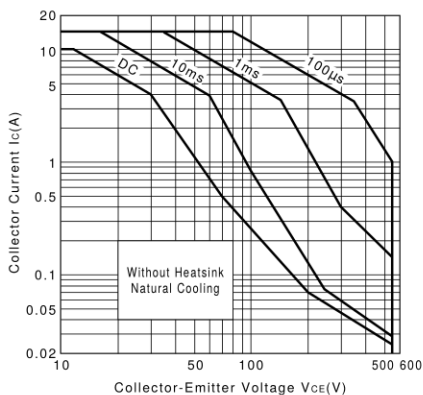
### ton, tstg, tr-Ic Characteristics (Typical)



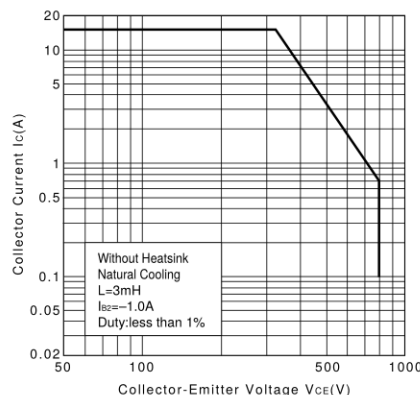
### θj-a-t Characteristics



### Safe Operating Area (Single Pulse)



### Reverse Bias Safe Operating Area



### Pc-Ta Derating

