

2SC4434

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

Application : Switching Regulator, Lighting Inverter, and General Purpose

■ Absolute maximum ratings (Ta=25°C)

Symbol	2SC4434	Unit
VCBO	500	V
VCEO	400	V
VEBO	10	V
Ic	15(Pulse30)	A
IB	5	A
Pc	120(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

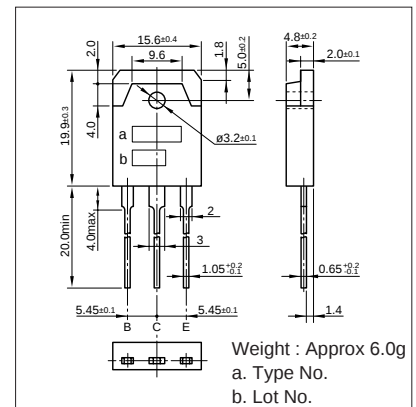
■ Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC4434	Unit
ICBO	V _{CB} =500V	100max	μA
IEBO	V _{EB} =10V	100max	μA
V _{(BR)CEO}	I _C =25mA	400min	V
h _{FE}	V _{CE} =4V, I _C =8A	10to25	
V _{CE(sat)}	I _C =8A, I _B =1.6A	0.7max	V
V _{BE(sat)}	I _C =8A, I _B =1.6A	1.3max	V
f _T	V _{CE} =12V, I _E =-1.5A	10typ	MHz
C _{OB}	V _{CB} =10V, f=1MHz	135typ	pF

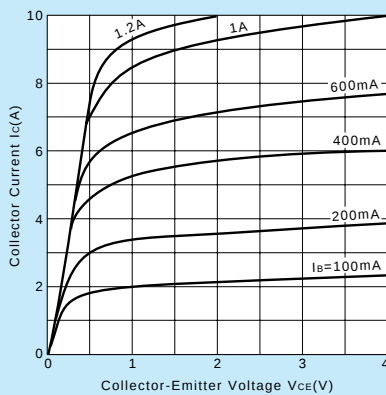
■ Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (A)	I _{B2} (A)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
200	25	8	10	-5	1.6	-3.2	0.5 _{max}	2.0 _{max}	0.15 _{max}

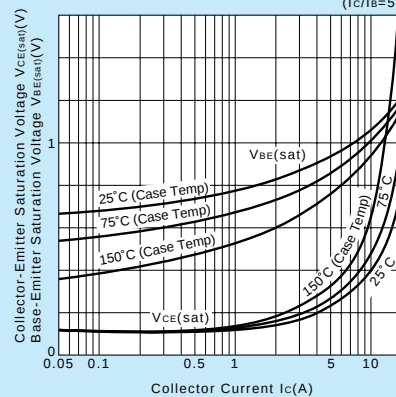
External Dimensions MT-100(TO3P)



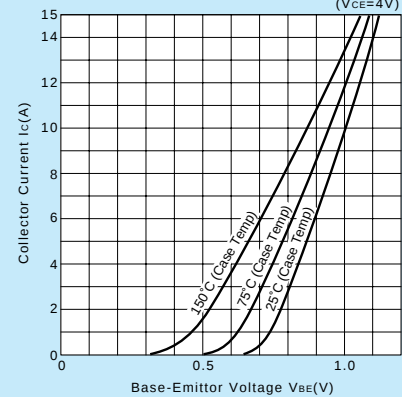
I_C - V_{CE} Characteristics (Typical)



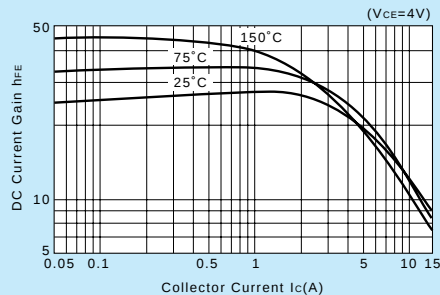
V_{CE}(sat), V_{BE}(sat)-I_C Temperature Characteristics (Typical)



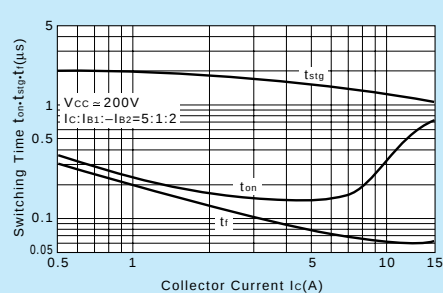
I_C-V_{BE} Temperature Characteristics (Typical)



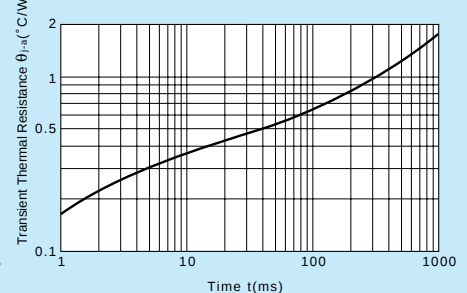
$h_{FE}-I_C$ Temperature Characteristics (Typical)



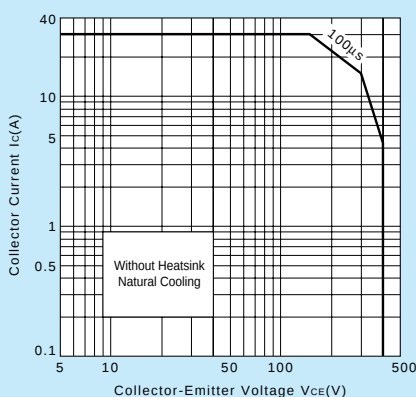
t_{on}•t_{stg}•t_f–I_C Characteristics (Typical)



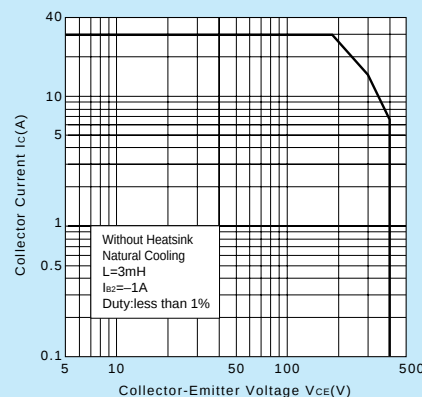
θ_{j-a-t} Characteristics



Safe Operating Area (Single Pulse)



Reverse Bias Safe Operating Area



Pc-Ta Derating

