

# 2SC4140

シリコンNPN三重拡散プレーナ型トランジスタ (高耐圧・高速スイッチングトランジスタ)

用途：スイッチングレギュレータ、一般用

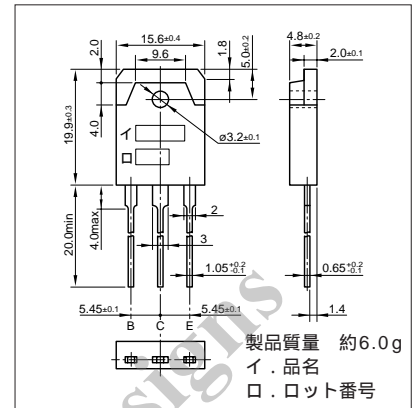
絶対最大定格 (Ta = 25 )

記号	規格値	単位
VcBO	500	V
VcEO	400	V
VEBO	10	V
Ic	18(パルス36)	A
Ib	6	A
Pc	130(Tc = 25 )	W
Tj	150	
Tstg	- 55 ~ + 150	

電気的特性 (Ta = 25 )

記号	試験条件	規格値	単位
IcBO	VcB = 500V	100max	μA
IEBO	VEB = 10V	100max	μA
V(BR)CEO	Ic = 25mA	400min	V
hFE	VCE = 4V, Ic = 10A	10 ~ 30	
VCE(sat)	Ic = 10A, Ib = 2A	0.5max	V
VBE(sat)	Ic = 10A, Ib = 2A	1.3max	V
fr	VCE = 12V, IE = - 2.0A	10typ	MHz
COB	VcB = 10V, f = 1MHz	165typ	pF

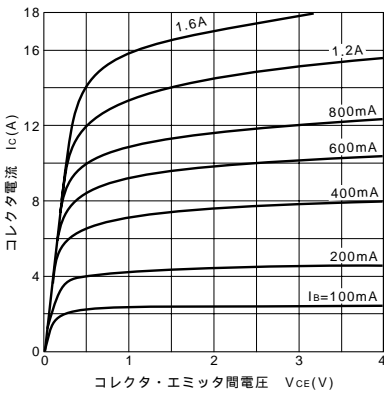
外形図 MT-100(TO3P)



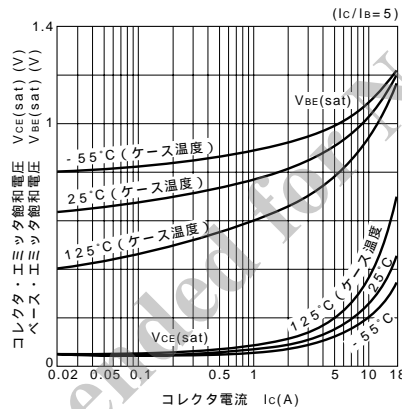
代表的スイッチング特性 (エミッタ接地)

Vcc (V)	RL (Ω)	Ic (A)	VBB1 (V)	VBB2 (V)	Ib1 (A)	Ib2 (A)	ton (μs)	tstg (μs)	tf (μs)
200	20	10	10	-5	1	-2	1max	3max	0.5max

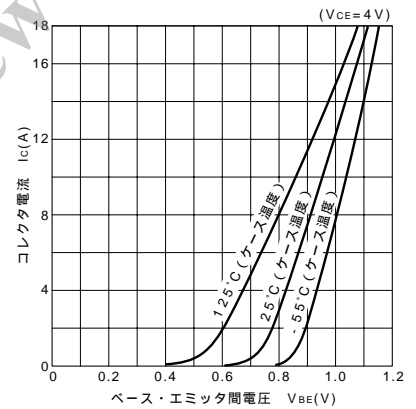
Ic-VCE特性 (代表例)



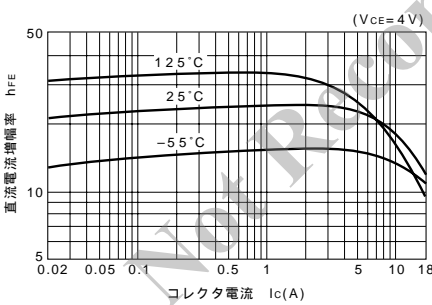
VCE(sat), VBE(sat)-Ic温度特性(代表例)



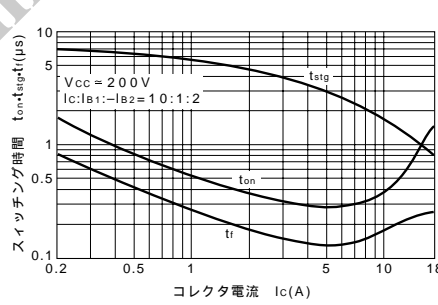
Ic-VBE温度特性 (代表例)



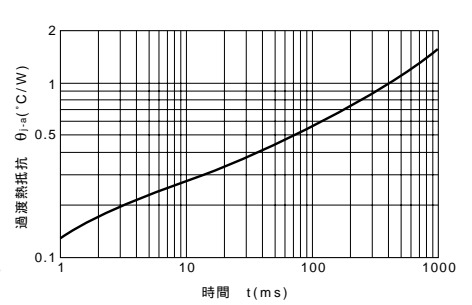
hFE-Ic温度特性 (代表例)



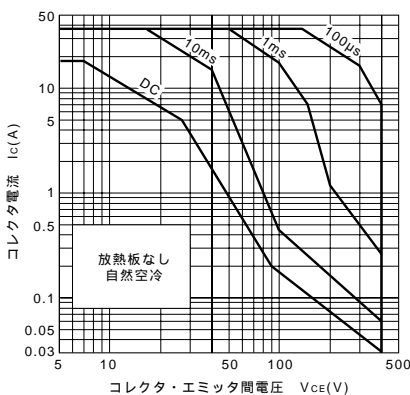
ton•tstg•tr-Ic特性 (代表例)



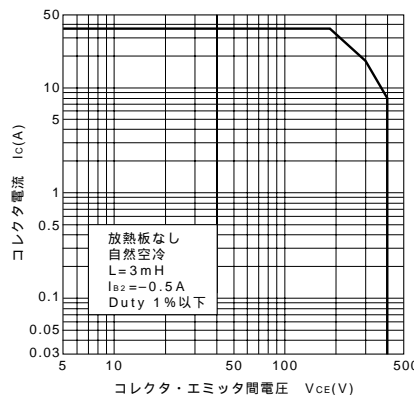
θj-a-t特性



ASO曲線 (単発パルス)



逆バイアスASO曲線



Pc-Ta定格

