

# Power Transistor Array STA415A

## Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
VCBO	35±5	V
VCEO	36±5	V
VEBO	6	V
IC	2 (pulse 3*)	A
IB	30	mA
Pr	4 (Ta = 25°C) 18 (Tc = 25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

\* Pw ≤ 1ms, Duty ≤ 25%

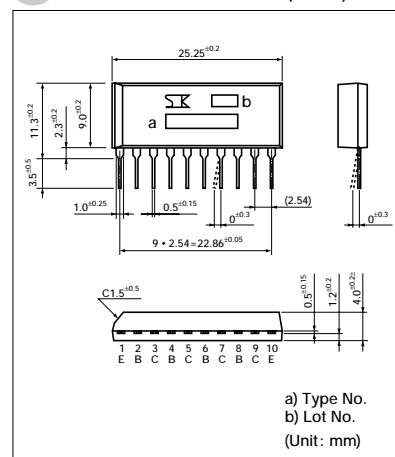
## Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings	Unit
ICBO	VCB = 30V	10max	μA
IEBO	VEB = 6V	2.7max	mA
VCEO	IC = 25mA	31 to 41	V
hFE	VCE = 4V, IC = 0.7A	400min	
VCE (sat)	IC = 0.5A, IB = 5mA	0.2max	V
	IC = 1A, IB = 5mA	0.5max	V
VFEC	IFEC = 2A	2.5max	V
RB		800±120	Ω
RBE		2.0±0.4	kΩ
Es/b	L = 10mH, single pulse	50min	mJ

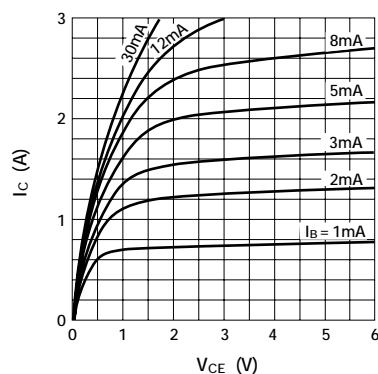
## Typical Switching Characteristics

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (mA)	IB2 (mA)	ton (μs)	tstg (μs)	tr (μs)
12	12	1	10	-5	5	0	1.0	8.5	2.5

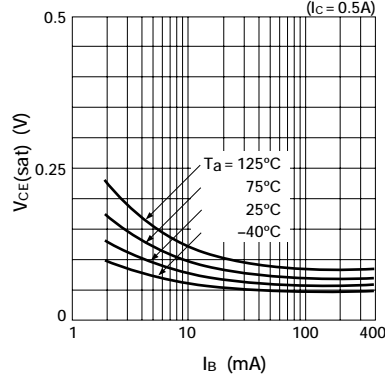
## External Dimensions STA4 (LF412)



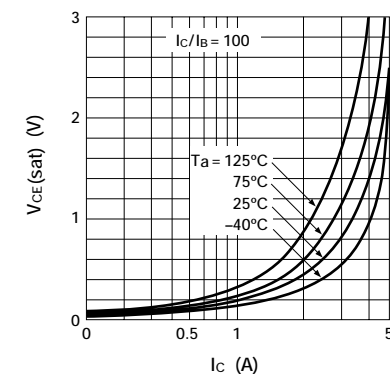
### IC — VCE Characteristics (typ.)



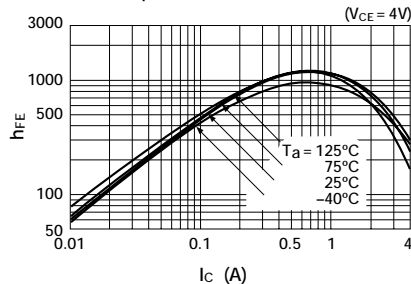
### VCE (sat) — IB Temperature Characteristics (IC = 0.5A)



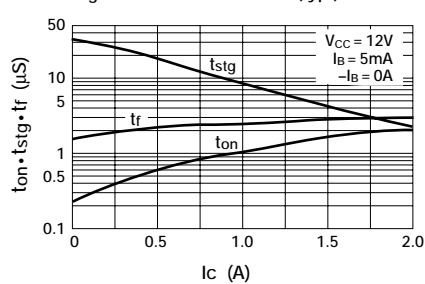
### VCE (sat) — IC Temperature Characteristics (IC/IB = 100)



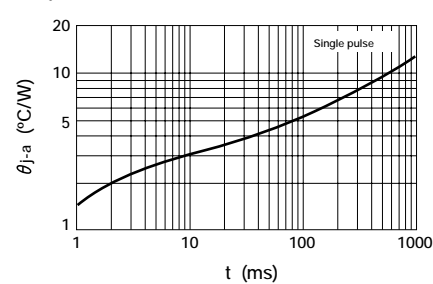
### hFE — IC Temperature Characteristics (VCE = 4V)



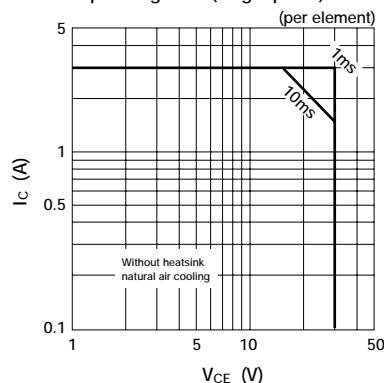
### ton·tstg·tr — IC Characteristics (typ.)



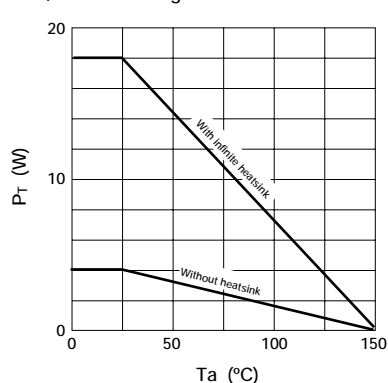
### θJA — t Characteristics



### Safe Operating Area (single pulse)



### Pr — Ta Derating



## Equivalent Circuit Diagram

