

# Surface-mount Power Transistor Array SDA04

## Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>CB0</sub>	-60	V
V <sub>CE0</sub>	-60	V
V <sub>EB0</sub>	-6	V
I <sub>C</sub>	-6 (pulse -12)	A
I <sub>B</sub>	-1	A
P <sub>T</sub>	2.5 (No Fin)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

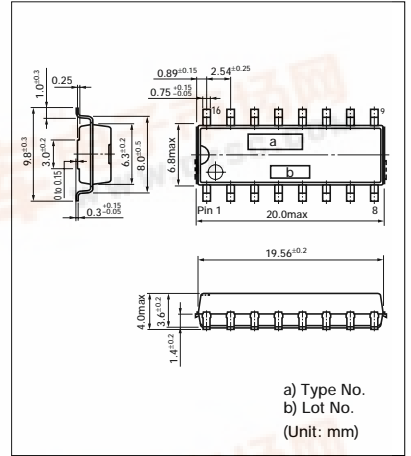
## Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings	Unit
I <sub>CB0</sub>	V <sub>CB</sub> = -60V	-10max	μA
I <sub>EB0</sub>	V <sub>EB</sub> = -6V	-10max	μA
V <sub>CE0</sub>	I <sub>C</sub> = -25mA	-60min	V
h <sub>FE</sub>	V <sub>CE</sub> = -4V, I <sub>C</sub> = -2A	100min	
V <sub>CE(sat)</sub>	I <sub>C</sub> = -2A, I <sub>B</sub> = -0.1A	-0.4max	V

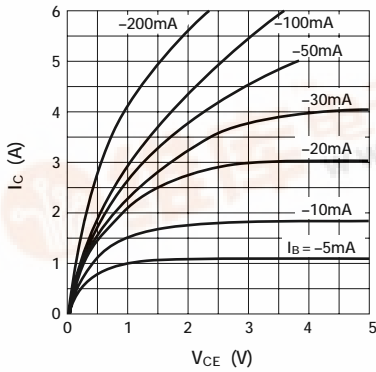
## Typical Switching Characteristics

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>B1</sub> (mA)	I <sub>B2</sub> (mA)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
12	12	1	10	-5	-50	50	0.4	1.75	0.22

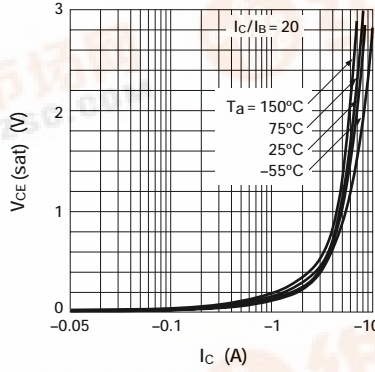
## External Dimensions SMD-16A



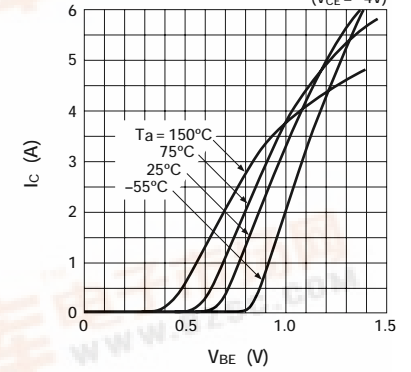
■ I<sub>C</sub> — V<sub>CE</sub> Characteristics



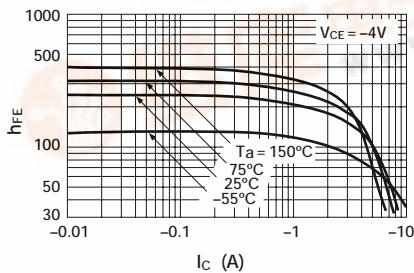
■ V<sub>CE(sat)</sub> — I<sub>C</sub> Temperature Characteristics (typ.)



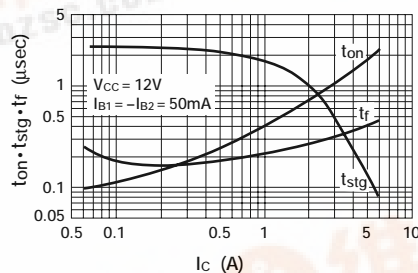
■ I<sub>C</sub> — V<sub>BE</sub> Temperature Characteristics (typ.) (V<sub>CE</sub> = -4V)



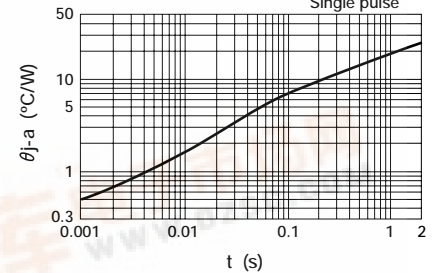
■ h<sub>FE</sub> — I<sub>C</sub> Temperature Characteristics



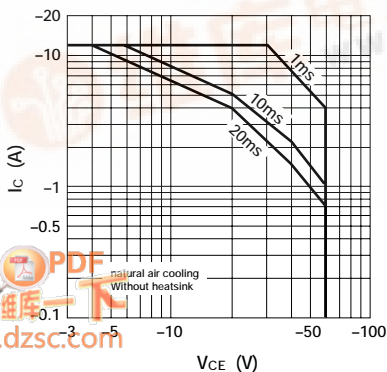
■ t<sub>on</sub> · t<sub>stg</sub> · t<sub>f</sub> — I<sub>C</sub> Characteristics



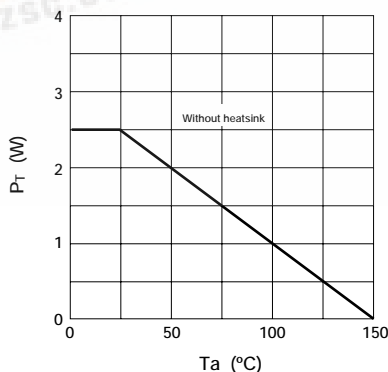
■ θ<sub>J-a</sub> — t Characteristics



■ Safe Operating Area (single pulse)



■ P<sub>T</sub> — T<sub>a</sub> Derating



## Equivalent Circuit Diagram

