STA460C

NPN Darlington
With built-in avalanche diode

External dimensions Ⓓ ··· STA (10-pin)

Absolute maximum ratings

(Ta=25°C)

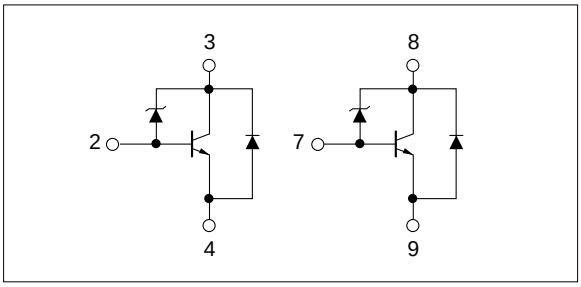
Symbol	Ratings	Unit
V_{CBO}	60±10	V
V_{CEO}	60±10	V
V_{EBO}	6	V
I_C	±6	A
I_{CP}	±10 (PW≤1ms, Du≤50%)	A
P_T	3.2 (Ta=25°C)	W
	18 (Tc=25°C)	
T_j	150	°C
T_{stg}	–40 to +150	°C

Electrical characteristics

(Ta=25°C)

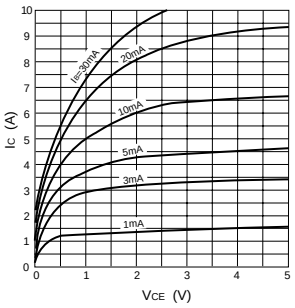
Symbol	Specification			Ratings	Unit
	min	typ	max		
I_{CBO}			10	μA	V_{CB}=50V
I_{EBO}			10	μA	V_{EB}=6V
V_{CEO}	50	60	70	V	I_C=50mA
h_{FE}	700	1500	3000		V_{CE}=1V, I_C=1A
V_{CE}(sat)		0.09	0.15	V	I_C=1.5A, I_B=15mA
V_{FEC}		1.25	1.5	V	I_{FEC}=6A
$E_{S/B}$	200			mJ	L=10mH, Single pulse

■Equivalent circuit diagram

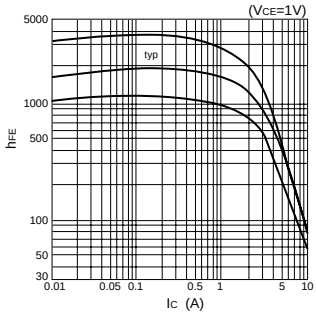


Characteristic curves

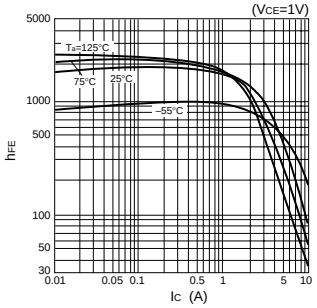
I_C-V_{CE} Characteristics (Typical)



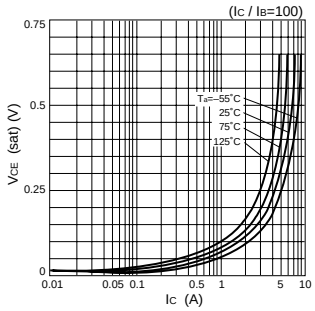
h_{FE}-I_C Characteristics (Typical)



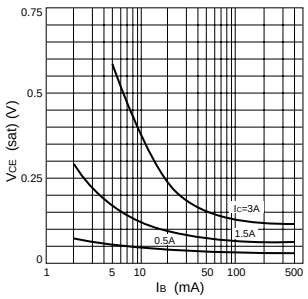
h_{FE}-I_C Temperature Characteristics (Typical)



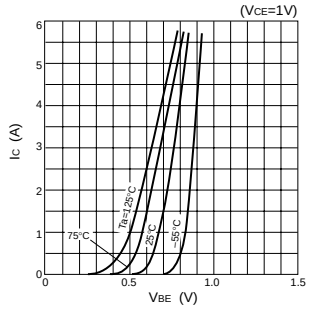
V_{CE}(sat)-I_C Temperature Characteristics (Typical)



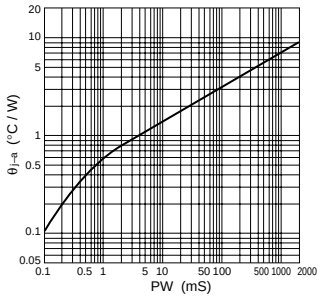
V_{CE}(sat)-I_B Characteristics (Typical)



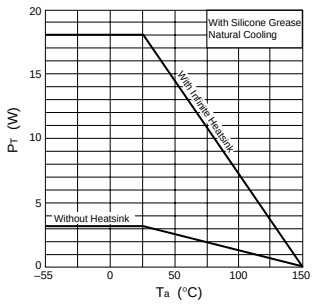
I_C-V_{BE} Temperature Characteristics (Typical)



$\theta_{j\text{-}a}$-PW Characteristics



P_T-T_a Characteristics



Safe Operating Area (SOA)

