SLA4041

NPN Darlington

With built-in flywheel diode

External dimensions Ⓐ···SLA

Absolute maximum ratings

(Ta=25°C)

Symbol	Specification	Unit
V_{CBO}	200	V
V_{CEO}	200	V
V_{EBO}	6	V
I_C	3	A
I_{CP}	6 (PW≤10ms, Du≤50%)	A
I_B	0.2	A
I_F	3 (PW≤0.5ms, Du≤25%)	A
I_{FSM}	6 (PW≤10ms, single)	A
V_R	200	V
P_T	5 (T_a=25°C)	W
	25 (T_c=25°C)	
Tj	150	°C
Tstg	–40 to +150	°C

Electrical characteristics

(Ta=25°C)

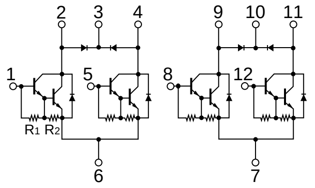
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CBO}			10	µA	V_{CB}=200V
I_{EBO}			10	mA	V_{EB}=6V
V_{CEO}	200			V	I_C=10mA
h_{FE}	1000	6000	15000		V_{CE}=4V, I_C=1.5A
V_{CE}(sat)		1.1	1.5	V	I_C=1.5A, I_B=3mA
V_{BE}(sat)		1.7	2.0	V	
V_{FEC}			1.5	V	I_{FEC}=2.0A

●Diode for flyback voltage absorption

(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
V_R	200			V	I_R=10µA
V_F			1.6	V	I_F=1A
I_R			10	µA	V_R=200V
trr		100		ns	I_F=±100mA

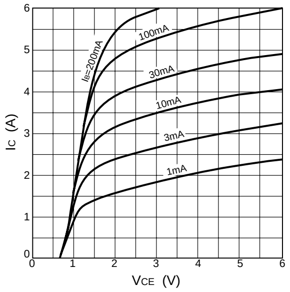
■Equivalent circuit diagram



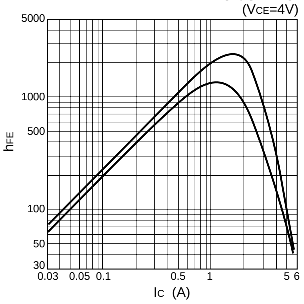
R_1: 2kΩ typ R_2: 200Ω typ

Characteristic curves

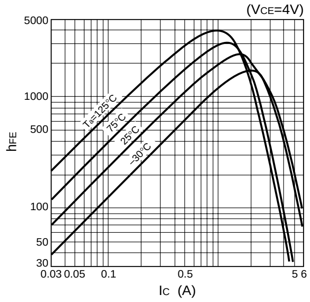
I_C-V_{CE} Characteristics (Typical)



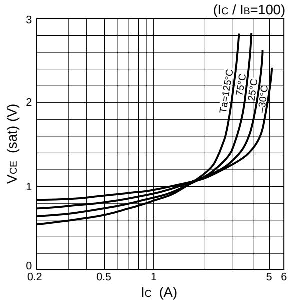
h_{FE}-I_C Characteristics (Typical)



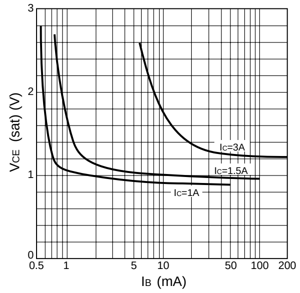
h_{FE}-I_C Temperature Characteristics (Typical)



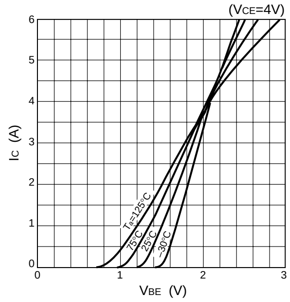
V_{CE}(sat)-I_C Temperature Characteristics (Typical)



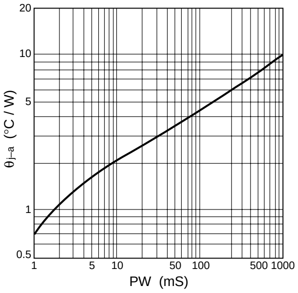
V_{CE}(sat)-I_B Characteristics (Typical)



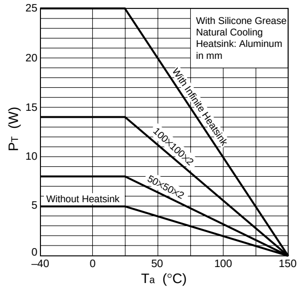
I_C-V_{BE} Temperature Characteristics (Typical)



θ_{j-a}-PW Characteristics



P_T-T_a Characteristics



Safe Operating Area (SOA)