

SLA4031

NPN Darlington

With built-in flywheel diode

External dimensions A ... SLA (12-pin)

Absolute maximum ratings

(Ta=25°C)

Symbol	Ratings	Unit
V _{CBO}	120	V
V _{CEO}	120	V
V _{EBO}	6	V
I _C	4	A
I _{CP}	6 (PW≤1ms, Du≤50%)	A
I _B	0.5	A
I _F	4 (PW≤0.5ms, Du≤25%)	A
I _{FSM}	6 (PW≤10ms, Single)	A
V _R	120	V
P _T	5 (Ta=25°C)	W
	25 (Tc=25°C)	
V _{iso}	1000 (Between fin and lead pin, AC)	V _{rms}
T _j	150	°C
T _{stg}	-40 to +150	°C
θ _{j-c}	5	°C/W

Electrical characteristics

(Ta=25°C)

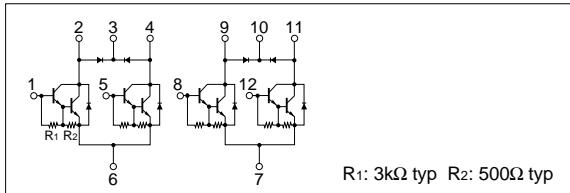
Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CBO}			10	μA	V _{CB} =120V
I _{EBO}			10	mA	V _{EB} =6V
V _{CEO}	120			V	I _c =25mA
h _{FE}	2000	5000	15000		V _{CE} =2V, I _c =2A
V _{CE} (sat)		1.0	1.5	V	I _c =2A, I _b =2mA
V _{BE} (sat)		1.6	2.0	V	
t _{on}		0.6		μs	V _{CC} =40V, I _c =2A, I _{b1} =-I _{b2} =10mA
t _{stg}		5.0		μs	
t _f		2.0		μs	

●Diode for flyback voltage absorption

(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
V _R	120			V	I _R =10μA
V _F			1.2	V	I _F =1A
I _R			10	μA	V _R =120V
trr		100		ns	I _F =±100mA

■ Equivalent circuit diagram



■ Characteristic curves

