

STA401A with built-in Avalanche Diode

NPN Silicon Triple Diffused Planar Darlington

Absolute maximum ratings

(Ta=25°C)

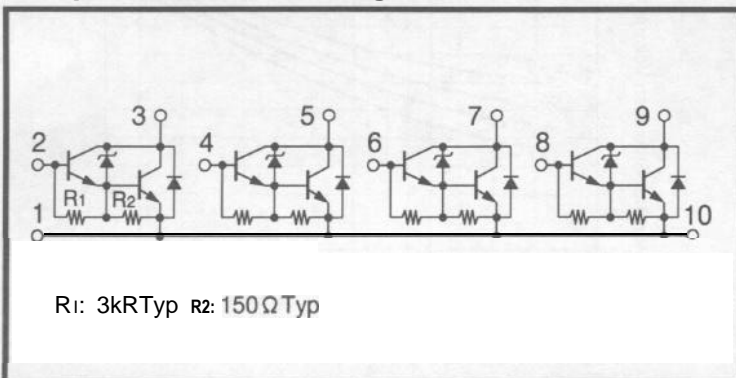
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CB0}	60±10	V
Collector-Emitter Voltage	V _{CE0}	60±10	V
Emitter-Base Voltage	V _{EB0}	6	V
Collector Current	I _C	4	A
Collector Current	I _{CF}	8 (P _w ≤10ms D _u ≤50%)	A
Total Power Dissipation	P _T	4 (Ta=25°C)	W
		20 (T _C =25°C)	
Junction Temperature	T _i	150	°C
Storage Temperature	T _{stg}	-40 to +150	°C

Electrical characteristics

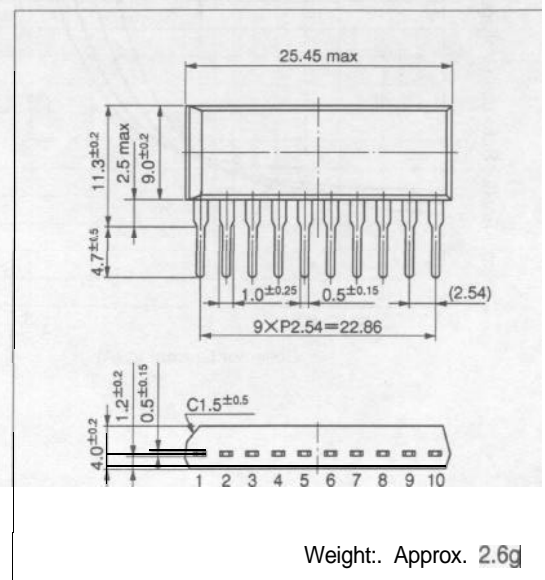
(Ta=25°C)

Parameter	Symbol	Conditions	Specification			Unit
			min	typ	max	
Collector Cut-off Current	I _{CB0}	V _{CB} =50V			100	μA
Emitter Cut-off Current	I _{EB0}	V _{EB} =6V			10	mA
Collector-Emitter Voltage	V _{CEO}	I _C =10mA	50	60	70	V
DC Current Gain	h _{FE}	V _{CE} =4V, I _C =3A	1000			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =3A I _B =10mA			2.0	V
Turn-on Time	t _{on}	I _C =3A, I _{B1} =-I _{B2} =10mA		1.0		μs
Storage Time	t _{stg}			4.0		μs
Fall Time	t _{fl}			1.5		μs

Equivalent circuit diagram



External dimensions (Unit: mm)



Characteristic Curves

