



NPN Silicon Transistor

122DL

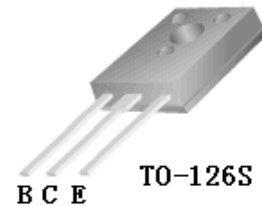
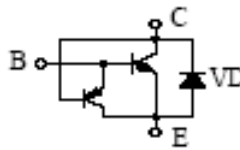
General Features

- Planar construction with triple diffused process
- Low voltage with large current design
- Low saturation voltage
- Inter-integrated diode and sourced anti-saturation net
- Low switch power loss, High reliability
- Good current characteristic
- Short switch time
- Wide SOA.
- Accord with RoHS compliant

Available Package TO-126S

Application

- 110V-120V Fluorescent lamp
- Electronic ballast



Absolute Maximum Ratings $T_c=25^\circ\text{C}$

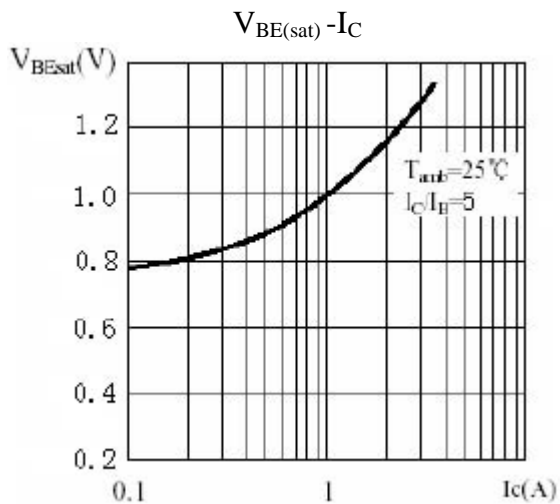
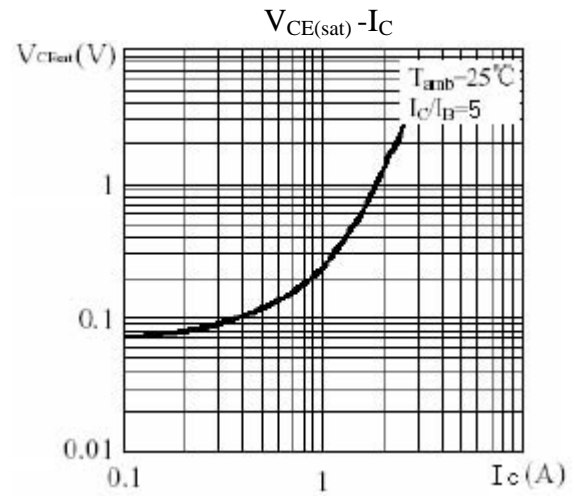
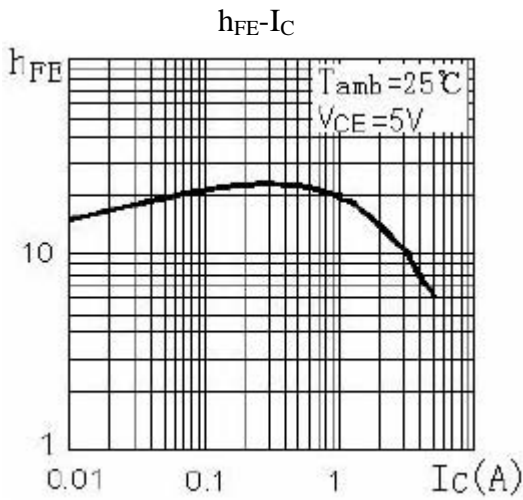
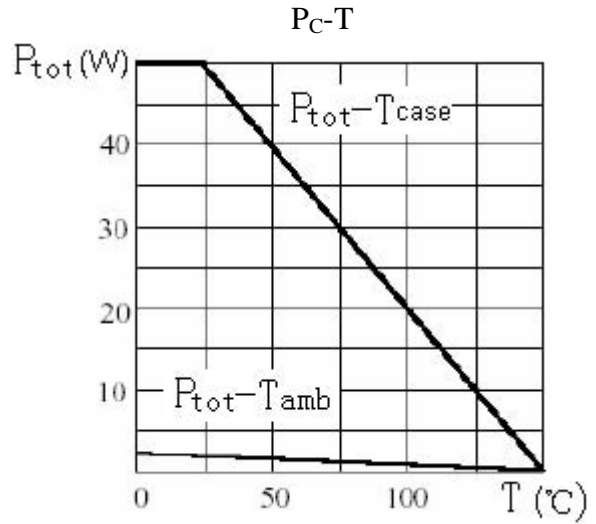
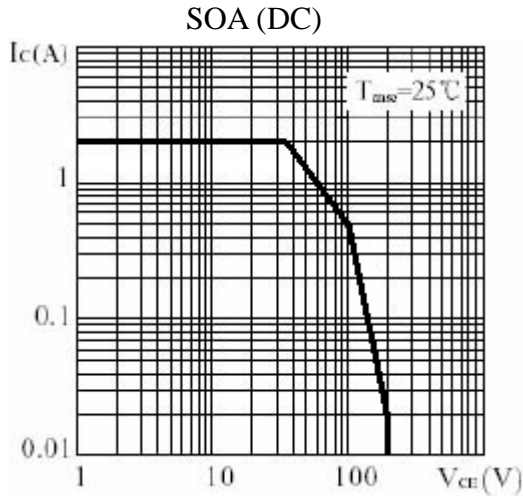
Item	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	400	V
Collector-Emitter Voltage	V_{CEO}	200	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current	I_C	2	A
Total Power Dissipation $T_a=25^\circ\text{C}$	P_C	2	W
		$T_c=25^\circ\text{C}$	50
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

Electronics Characteristics $T_c=25^\circ\text{C}$

Item	Symbol	Testing Condition	Spec. Limit		Unit 單位
			Min	Max	
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=1\text{mA}$ $I_E=0$	400		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=10\text{mA}$ $I_B=0$	200		V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=1\text{mA}$ $I_C=0$	9		V
Collector-Base Cutoff Current	I_{CBO}	$V_{CB}=400\text{V}$ $I_E=0$		20	μA
Collector-Emitter Cutoff Current	I_{CEO}	$V_{CE}=200\text{V}$ $I_B=0$		20	μA
Emitter-Base Cutoff Current	I_{EBO}	$V_{EB}=9\text{V}$ $I_C=0$		20	μA
Collector-Emitter Saturation Voltage	V_{CEsat}	$I_C=0.5\text{A}$ $I_B=0.1\text{A}$		0.5	V
		$I_C=1.5\text{A}$ $I_B=0.5\text{A}$		1.5	V
Base-Emitter Saturation Voltage	V_{BEsat}	$I_C=1.5\text{A}$ $I_B=0.5\text{A}$		1.5	V
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}$ $I_C=0.2\text{A}$	15	30	
Fall Time	t_f	$I_C=0.25\text{A}$ (UI9600)		0.8	μs
Storage Time	t_s		1.5	3.0	μs
Current Gain Bandwidth	f_T	$V_{CE}=10\text{V}$ $I_C=200\text{mA}$ $f=1\text{MHZ}$	5		MHZ



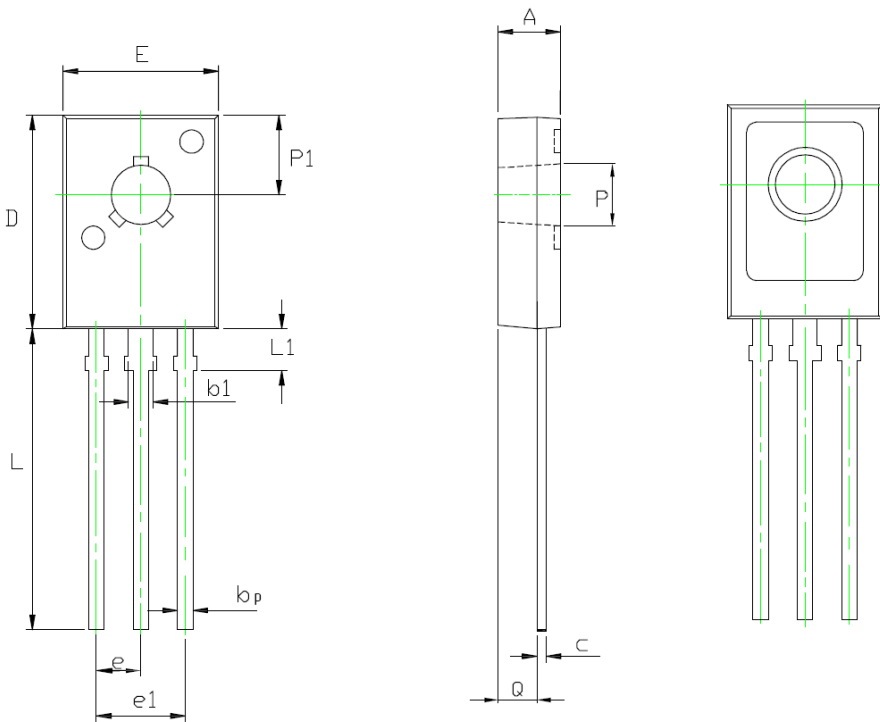
Typical Characteristics





TO-126 PACKAGE OUTLINE DIMENSIONS

Unit: mm



Item	Min.	Max.
A	2.280	2.680
b1	1.170	1.370
bp	0.660	0.860
c	0.450	0.600
D	10.700	11.100
E	7.430	7.830
e	2.280 REF	
e1	4.560REF	
L	14.900	15.900
L1	1.750	1.950
P	3.350	3.550
P1	3.600	3.900
Q	1.060	1.460