◆*Si NPN*

◆*RoHS COMPLIANT*

1. APPLICATION

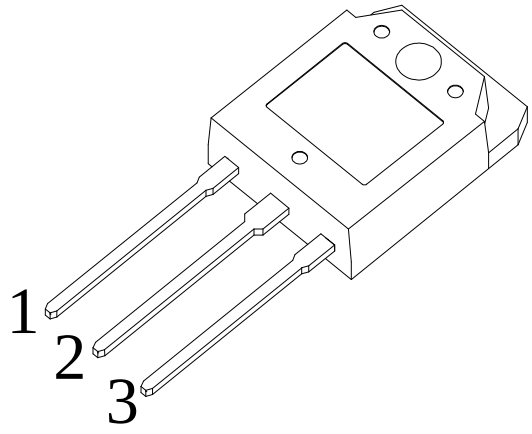
Fluorescent Lamp、Electronic Ballast、
Computer Switch Power Supply

2. FEATURES

- High voltage capability
- Features of good high temperature
- High switching speed

3. PACKAGE

TO-3PB



1 Base(B)　2 Collector(C)　3 Emitter(E)

4. Electrical Characteristics

4.1 Absolute Maximum Ratings

T_{amb}= 25℃ unless specified

PARAMETER		SYMBOL	VALUE	UNIT
Collector-Base Voltage		V_{CBO}	700	V
Collector-Emittor Voltage		V_{CEO}	400	V
Emittor- Base Voltage		V_{EBO}	9	V
Collector Current		I_C	12	A
Power Dissipation	Ta=25℃	P_{tot}	3	W
	Tc=25℃		130	
Junction Temperature		T_j	150	℃
Storage Temperature		T_{stg}	-55～150	℃

4.2 Electrical Parameter

T_{amb}= 25℃ unless specified

PARAMETER	SYMBOL	TEST CONDITION	VALUE			UNIT
			MIN	TYP	MAX	
Collector-Base Voltage	BV_{CBO}	I_C=1mA，I_E=0	700			V
Collector-Emittor Voltage	BV_{CEO}	I_C=1mA，I_B=0	400			V
Emittor-Base Voltage	BV_{EBO}	I_E=1mA，I_C=0	9			V
Collector-Base Cutoff Current	I_{CBO}	V_{CB}=700V, I_E=0			10	μA
Collector-Emittor Cutoff Current	I_{CEO}	V_{CE}=400V, I_B=0			20	μA
Emittor-Base Cutoff Current	I_{EBO}	V_{EB}=9V, I_C=0			10	μA
DC Current Gain	h_{FE}*	V_{CE}=5V, I_C=1mA	8			
		V_{CE}=5V, I_C=3A	15		40	
Collector-Emittor Saturation Voltage	$V_{CE\ sat}$*	I_C=8A, I_B=4A			0.8	V
Base-Emittor Saturation Voltage	$V_{BE\ sat}$*	I_C=8A, I_B=4A			1.5	V
Rising Time	t_r	I_C=500mA (UI9600)			0.5	μs
Falling Time	t_f			0.10	0.4	μs
Storage Time	t_s		5.0		8.0	μs
Typical Frequency	f_T	V_{CE}=10V,I_C=0.5A, f=1MHz	4			MHz

*：Pulse test tp≤300μs, δ≤2%

5. Characteristic Curve

Fig1 SOA（DC）

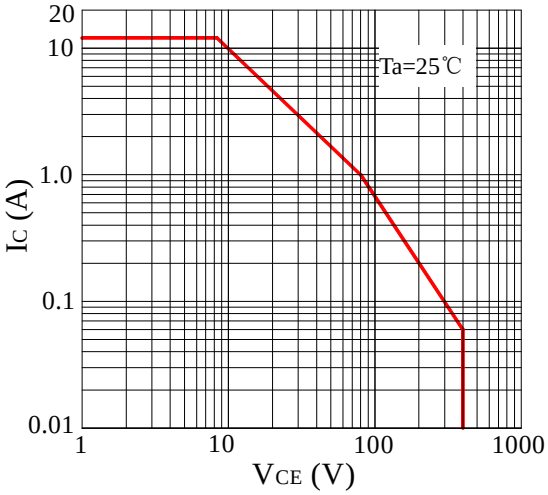


Fig2 Ptot－T

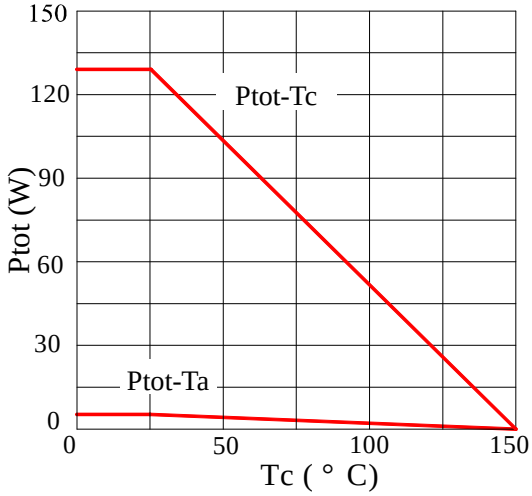


Fig3 Static Characteristic

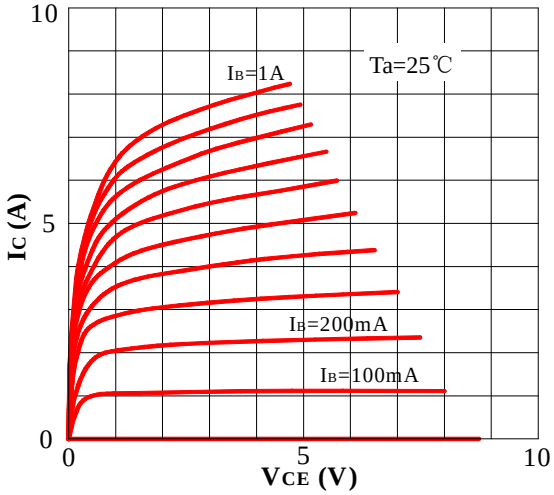


Fig4 h_{FE}-I_C

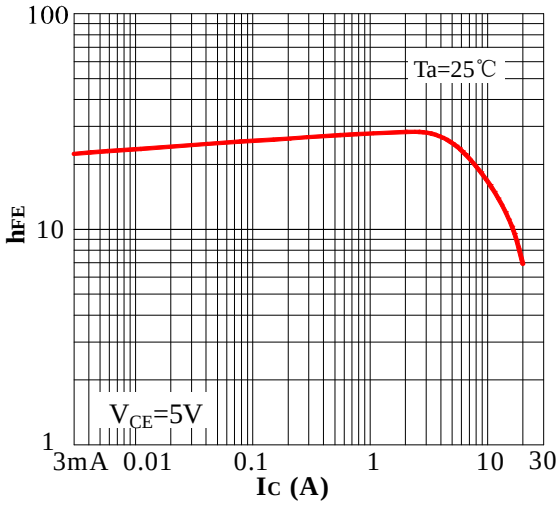


Fig5 V_{CEsat}-I_C

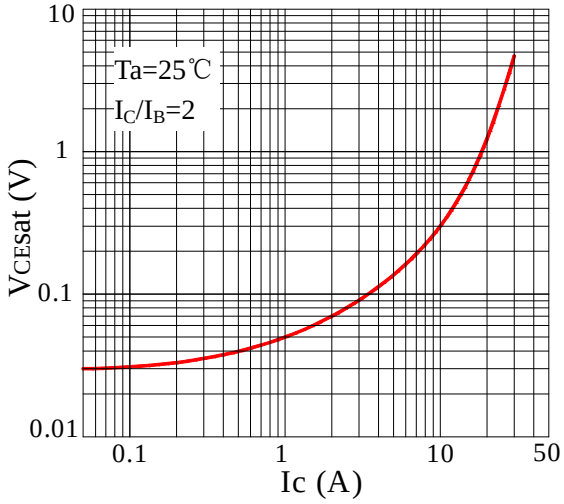
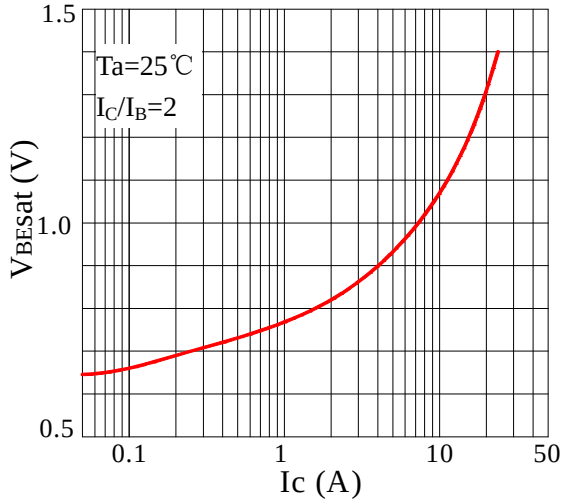


Fig6 V_{BEsat}-I_C



6. Package Dimentions(Unit：mm)

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