◆*Si NPN*

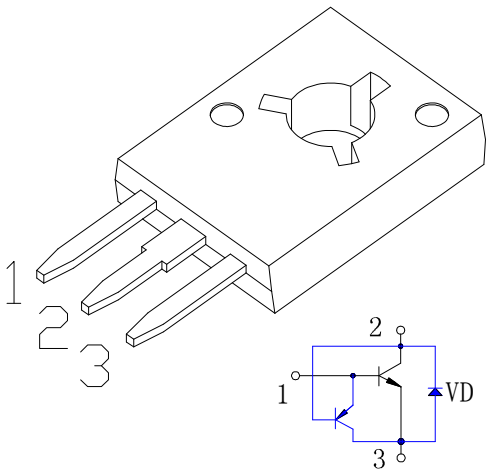
◆*RoHS COMPLIANT*

1. APPLICATION

Charger and Switch-mode power supplies

2. FEATURES

- High voltage capability
- Intergrated antiparallel collector-emitter diode
- Features of good high temperature
- High switching speed



1 Base(B) 2 Collector(C) 3 Emitter(E)

3. PACKAGE

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4. Electrical Characteristics

4.1 Absolute Maximum Ratings

T_{amb}= 25℃ unless specified

PARAMETER		SYMBOL	VALUE	UNIT
Collector-Base Voltage		V_{CBO}	800	V
Collector-Emittor Voltage		V_{CEO}	500	V
Emittor- Base Voltage		V_{EBO}	9	V
Collector Current		I_C	1.6	A
Power Dissipation	Ta=25℃	P_{tot}	1.25	W
	Tc=25℃		15	
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	800			V
Collector-Emittor Voltage	BV_{CEO}	I_C=1mA，I_B=0	500			V
Emittor-Base Voltage	BV_{EBO}	I_E=1mA，I_C=0	9			V
Collector-Base Cutoff Current	I_{CBO}	V_{CB}=800V, I_E=0			10	μA
Collector-Emittor Cutoff Current	I_{CEO}	V_{CE}=500V, 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=200mA	15		40	
Collector-Emittor Saturation Voltage	$V_{CE\ sat}$*	I_C=1A, I_B=0.5A			0.6	V
Base-Emittor Saturation Voltage	$V_{BE\ sat}$*	I_C=1A, I_B=0.5A			1.2	V
Rising Time	t_r	I_C=250mA (UI9600)			1.0	μs
Falling Time	t_f				0.8	μs
Storage Time	t_s		1.5		3.5	μs
Typical Frequency	f_T	V_{CE}=20V,I_C=20mA, f=1MHz	5			MHz

*: Pulse test tp≤300μs, δ≤2%

5. Characteristic Curve

Fig1 SOA（DC）

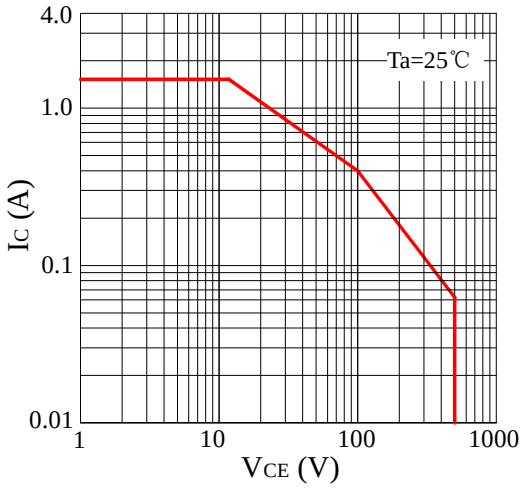


Fig2 Ptot－T

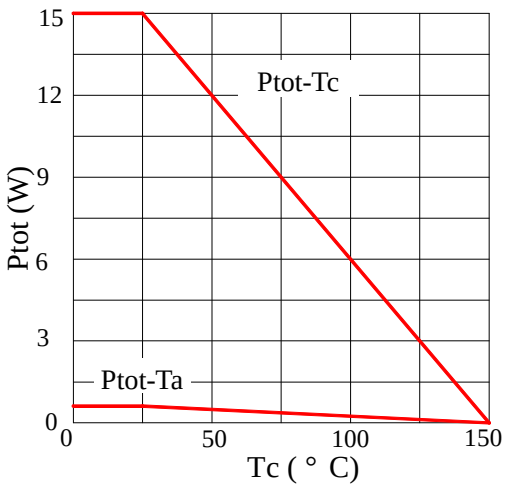


Fig3 Static Characteristic

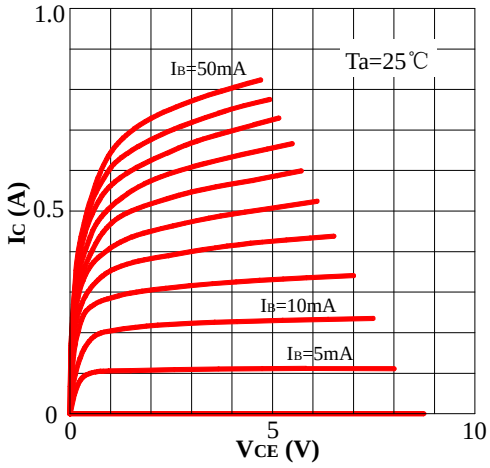


Fig4 h_{FE}-I_C

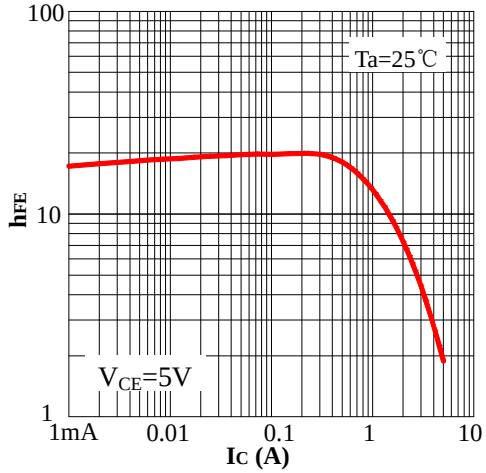


Fig5 V_{CEsat}-I_C

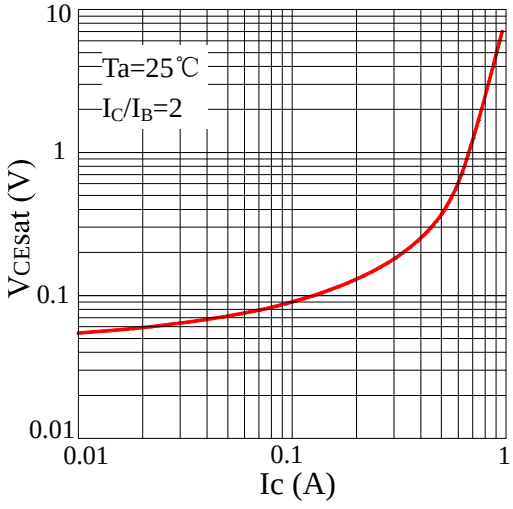
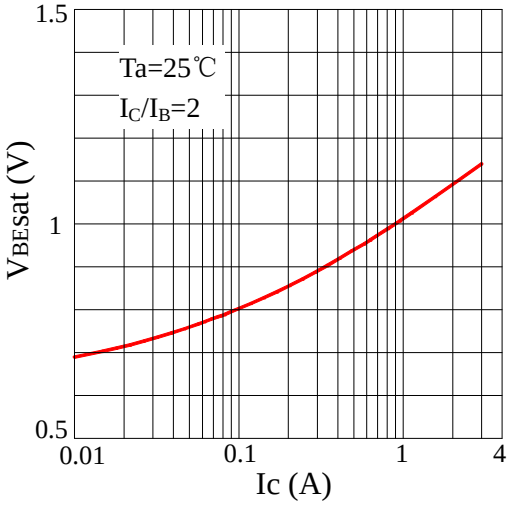


Fig6 V_{BEsat}-I_C



6. Package Dimentions(Unit：mm)

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