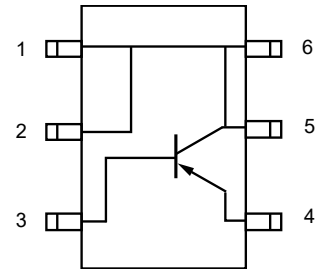


Feature

This device is Pb-Free, Halogen Free/BFR Free and RoHS compliant.

- Very low collector to emitter saturation voltage
- DC current gain >100
- 3A continuous collector current
- PNP epitaxial planar silicon transistor


Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 2 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness : ≤3mil

Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Value	Units
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_B=0$ $I_C=-10mA$	-30	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_E=0$ $I_C=-100uA$	-30	V
Emitter -Base Breakdown Voltage	$V_{(BR)EBO}$	$I_C=0$ $I_E=-100uA$	-5	V
Collector Current	I_C		-3	A
Collector Peak Current	I_{CM}		-6	A
Base Current	I_B		-0.2	A
Base Peak Current	I_{BM}		-0.5	A
Total Dissipation @25°C	P_{tot}		1.2	W
Storage Temperature	T_{stg}		-65~150	°C
Max. Operating Junction Temperature	T_j		150	°C

Absolute maximum rating@25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
DC Current Gain	h_{FE}	$I_C=-2.5A, V_{CE}=-3.0V$	80			-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-0.5A, I_B=-5mA$	-		-0.15	V
		$I_C=-1.2A, I_B=-20mA$	-		-0.25	
		$I_C=-2A, I_B=-20mA$	-		-0.5	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-0.5A, I_B=-5mA$			-1.1	V
		$I_C=-1.2A, I_B=-20mA$			-1.1	
		$I_C=-2A, I_B=-20mA$			-1.2	
Collector Cut-off Current ($I_E=0$)	I_{CBO}	$V_{CB}=-30V$			-0.1	μA
		$V_{CB}=-30V, T_C=125^\circ C$			-20	
Emitter Cut-off Current($I_C=0$)	I_{EBO}	$V_{EB}=-5V$			-0.1	μA

Typical Characteristics

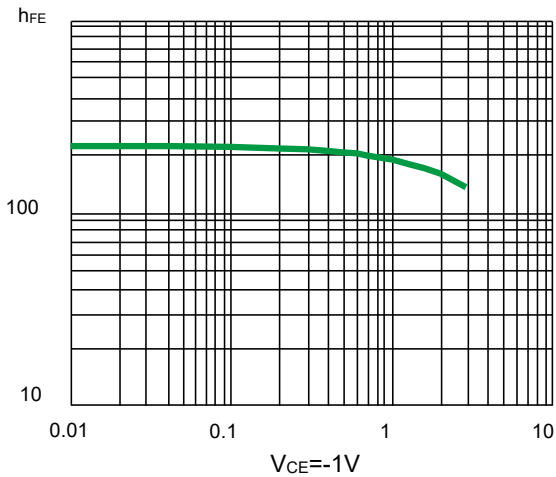


Fig1. DC Current Gain

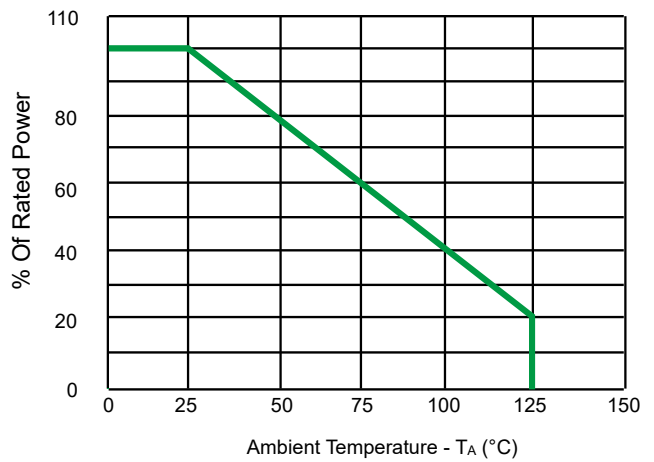


Fig2. Power Derating Curve

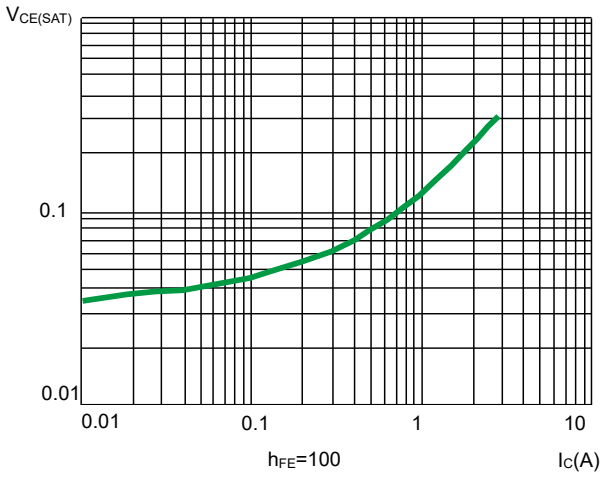


Fig 3. Collector-Emitter Saturation Voltage

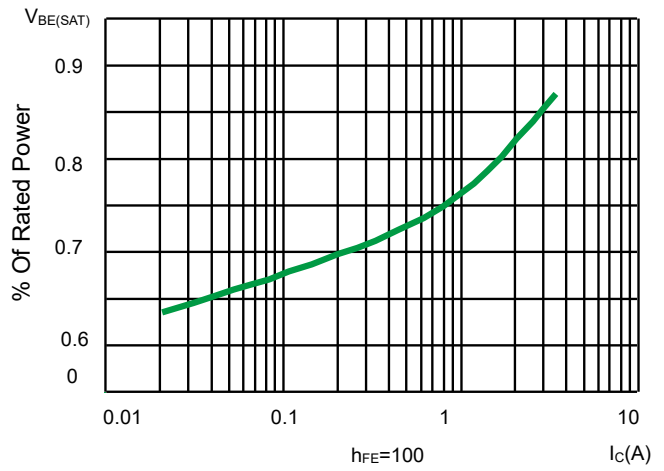


Fig4. Base-Emitter Saturation Voltage

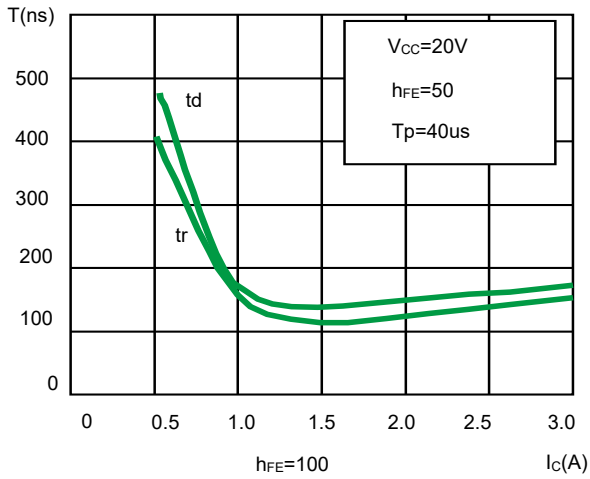


Fig 5. Switching Times Resistive Load

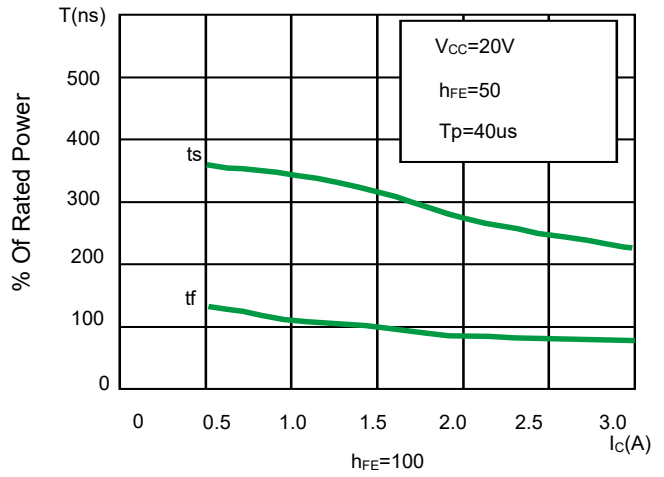
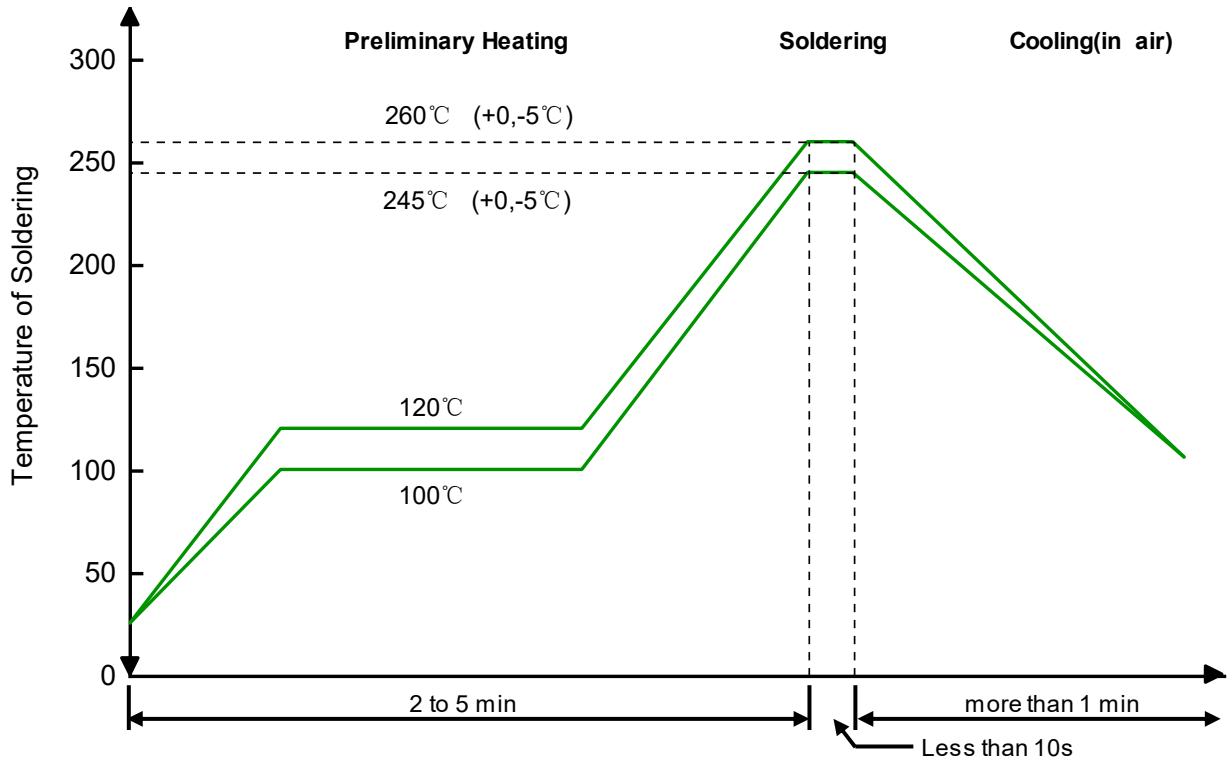


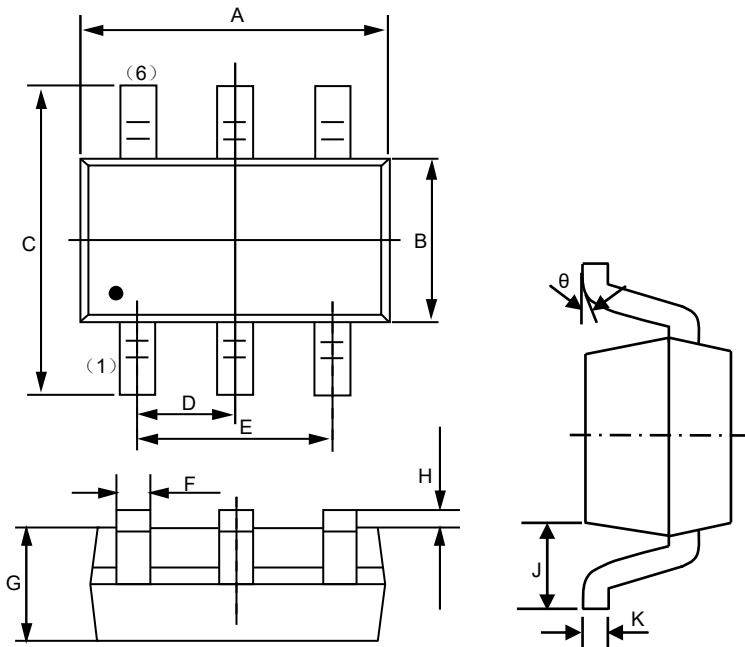
Fig6. Switching Times Resistive Load

Solder Reflow Recommendation

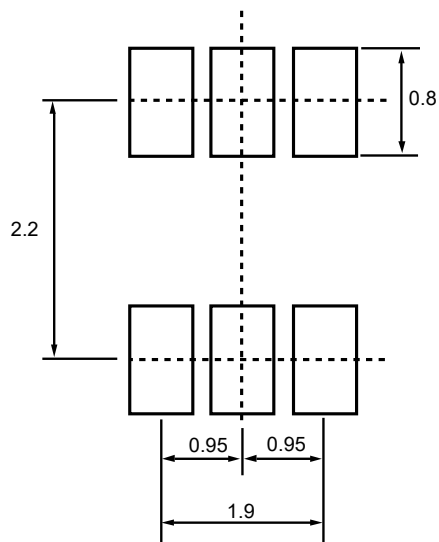


Remark: Pb free for 260°C; Pb for 245°C.

Product dimension (SOT-23-6L)



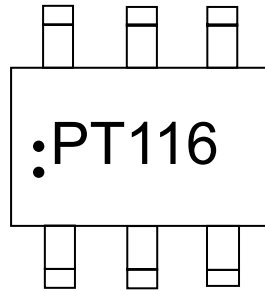
Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.820	3.020	0.111	0.119
B	1.500	1.700	0.059	0.067
C	2.650	2.950	0.104	0.116
D	0.950 (BSC)		0.037 (BSC)	
E	1.800	2.000	0.071	0.079
F	0.300	0.500	0.012	0.020
G	1.050	1.150	0.041	0.045
H	0.000	0.100	0.000	0.004
J	0.45	0.60	0.0180	0.0236
K	0.100	0.200	0.004	0.008
θ	0°	8°	0°	8°



Unit:mm

Suggested PCB Layout


Marking information



Ordering information

Device	Package	Shipping
PT236T30E2	SOT-23-6L (Pb-Free)	3000 / Tape & Reel


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