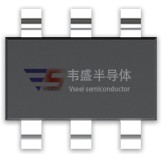
VSL818C TRANSISTOR (PNP)

DESCRIPTIONS

The device is manufactured in low voltage PNP Planar T echnology with "Base Island" layout. The resulting transistor shows exceptional high gain performance coupled with very low saturation voltage.



SOT-23-6

1.COLLECTOR
2.COLLECTOR
3.BASE
4.EMITTER
5.COLLECTOR
6.COLLECTOR

FEATURE

- Very low collector to emitter saturation voltage

APPLICATIONS

- Power management in portable equipments
- Switching regulator in battery charge applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-2	A
I_{CM}	Collector Current -Pulsed	-3	A
P_C	Collector Power Dissipation	0.35	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	357	℃/W
P_{tot}	Total Dissipation at T_C = 25℃ (note 1)	1	W
$R_{\theta JC}$	Thermal Resistance from Junction to Case (note 1)	125	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

Note 1： Package mounted on FR4 PCB 25mm x 25mm.

T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=-10mA,I_B=0	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA ,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.1	μA
DC current gain	h_{FE}*	V_{CE}=-1V, I_C=-0.5A	100		300	
		V_{CE}=-3V, I_C=-2A	80			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=-0.5A,I_B=-10mA			-0.18	V
		I_C=-2A,I_B=-200mA			-0.35	V
Bade-emitter saturation voltage	$V_{BE(sat)}$*	I_C=-0.5A,I_B=-5mA			-1.1	V
		I_C=-1.2A,I_B=-12mA			-1.1	V
		I_C=-2A,I_B=-20mA			-1.2	V
Base-emitter on voltage	$V_{BE(on)}$*	I_C=-0.5A, V_{CE}=-2V			-1	V

*Pulse test: Pulse width≤300us,duty cycle≤2.0%.