

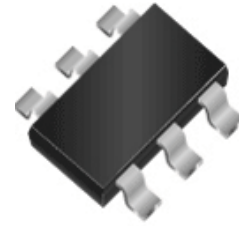
WPT2F42

Single, PNP, -30V, -3A, Power Transistor

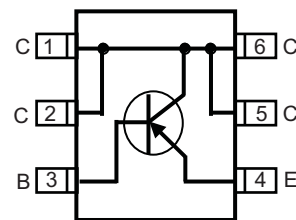
[Http://www.willsemi.com](http://www.willsemi.com)

Descriptions

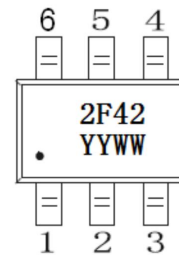
The WPT2F42 is PNP bipolar power transistor with very low saturation voltage. This device is suitable for use in charging circuit and other power management. Standard Products WPT2F42 are Pb-free and Halogen-free.



SOT-23-6L



Pin configuration (Top view)



2F42 = Device Code
 YY = Year
 WW = Week

Marking

Features

- Ultra low collector-to-emitter saturation voltage
- High DC current gain >100
- 3A continue collector current
- Small package SOT-23-6L.

Applications

- Charging circuit
- Power regulator
- Other power management in portable equipments

Order information

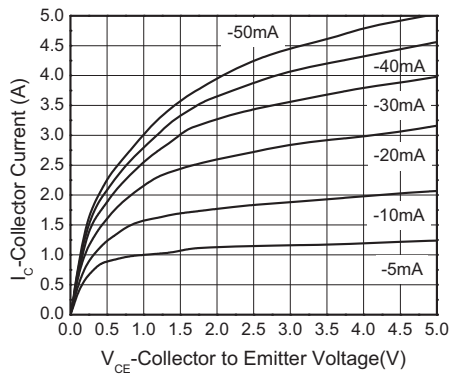
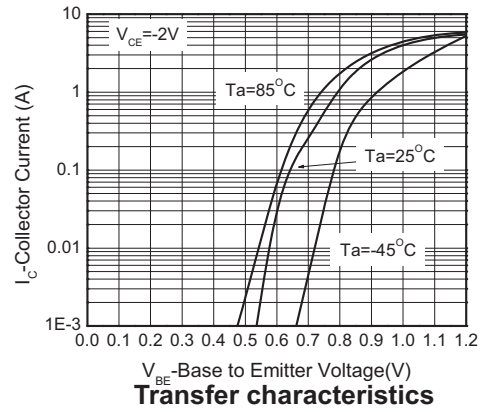
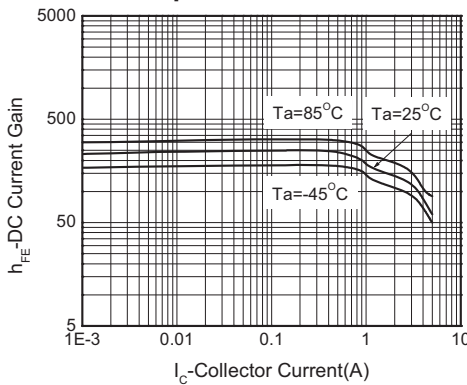
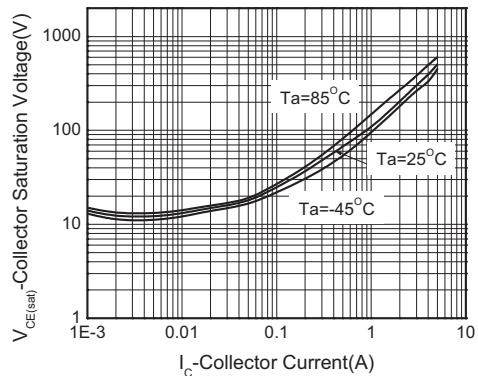
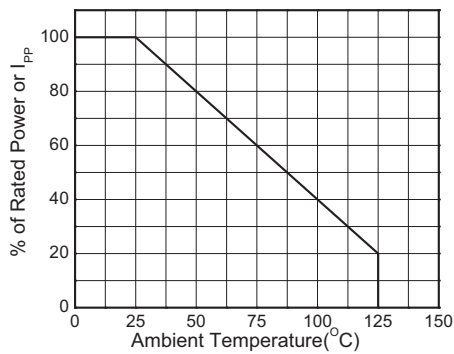
Device	Package	Shipping
WPT2F42-6/TR	SOT-23-6L	3000/Reel&Tape

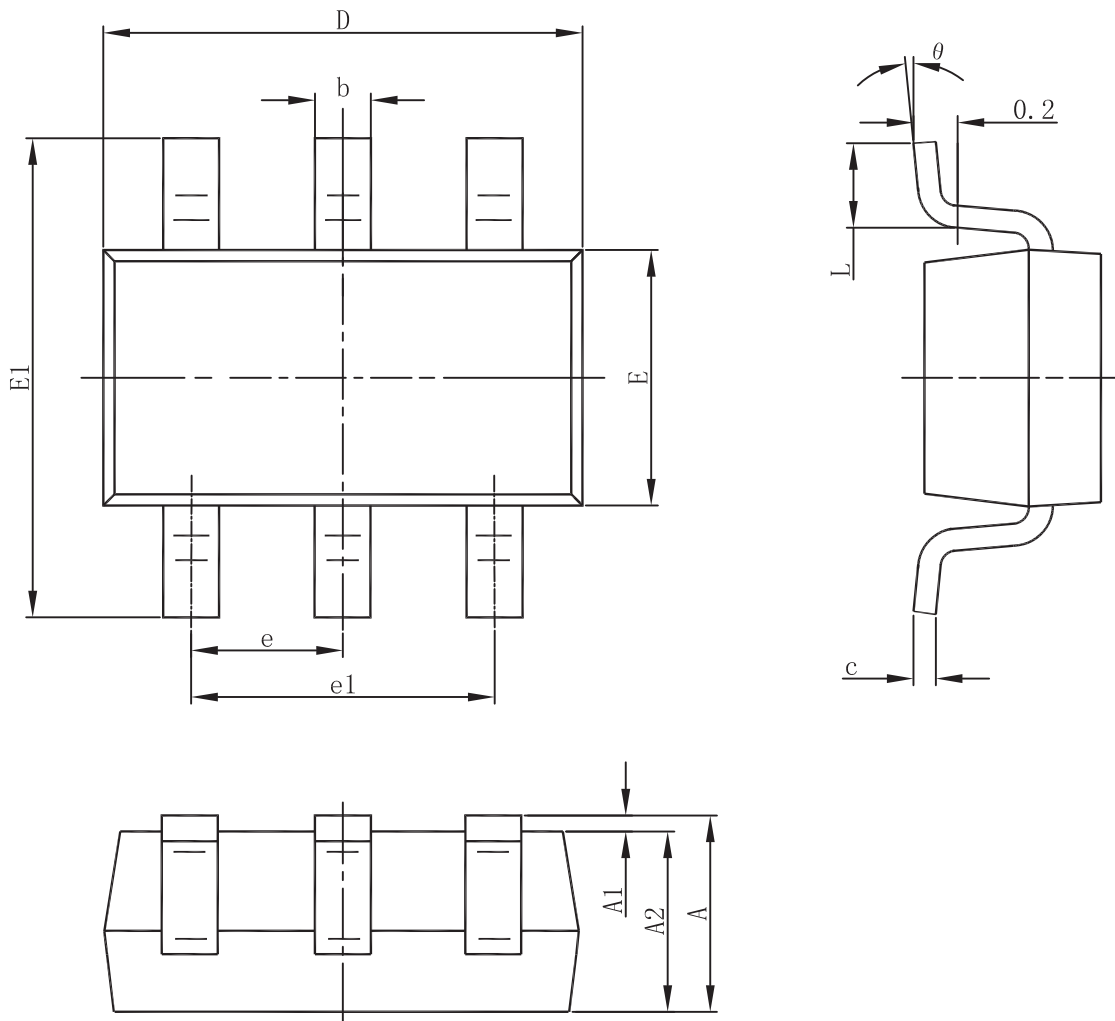
Absolute maximum ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}	-30	V
Collector-base voltage	V_{CBO}	-30	V
Emitter-base voltage	V_{EBO}	-6	V
Continues collector current	I_C	-3	A
Pulse collector current	I_{CM}	-6	A
Power dissipation @ 25°C	P_D	2	W
Junction Temperature	T_J	150	°C
Lead Temperature	T_L	260	°C
Storage Temperature Range	T_{stg}	-55 to 150	°C

Electronics Characteristics (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	BV_{CEO}	$I_C=-10mA, I_B=0mA$	-30			V
Collector-base breakdown voltage	BV_{CBO}	$I_C=-1mA, I_E=0mA$	-30			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=-100\mu A, I_C=0mA$	-6			V
Collector cutoff current	I_{CBO}	$V_{CB}=-30V$			-100	nA
Emitter cutoff current	I_{EBO}	$V_{EB}=-5V$			-100	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-2.0A, I_B=-200mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-2.0A, I_B=-200mA$		-1.0	-1.5	V
Base-emitter forward voltage	$V_{BE(on)}$	$I_C=-0.5A, V_{CE}=-2V$		-0.7	-1.0	V
DC current gain	h_{FE}	$I_C=-1.0A, V_{CE}=-2V$	100		300	

Typical Characteristics (Ta=25°C, unless otherwise noted)

Output characteristics

Transfer characteristics

DC current gain

C-E saturation voltage vs. Collector current

Power Derating

Package outline dimensions
SOT-23-6L


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	1.050	1.250
10	0.000	0.100
A2	1.050	1.150
b	0.300	0.500
c	0.100	0.200
D	2.820	3.020
E	1.500	1.700
E1	2.650	2.950
e	0.950(Basic)	
e1	1.800	2.000
L	0.300	0.600
θ	0°	8°