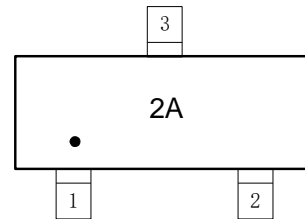


**WPT2F06**
**PNP, General Purpose Transistors**
[Http://www.willsemi.com](http://www.willsemi.com)
**Descriptions**

The WPT2F06 is designed for general purpose amplifier applications. Standard products are Pb-free and Halogen-free


**SOT-23**
**Features**

- Complementary to WNT2F04
- Collector Current:  $I_c = -0.2A$

**(Top View)**

**Marking :2A**

- 1: BASE**
- 2: EMITTER**
- 3: COLLECTOR**

**Order information**

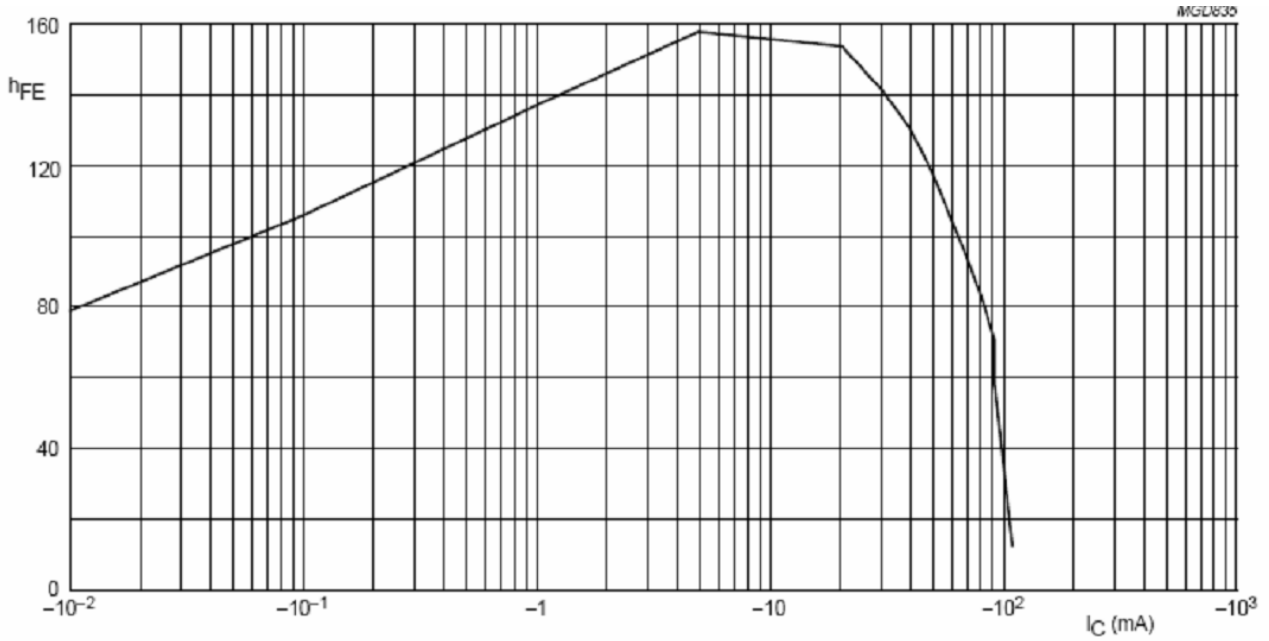
Device	Package	Shipping
WPT2F06-3/TR	SOT-23	3000/Reel&Tape

**Absolute maximum ratings**

Parameter	Symbol	Value	Unit
Collector-emitter Voltage	$V_{CEO}$	-40	V
Collector-base Voltage	$V_{CBO}$	-40	V
Emitter-base Voltage	$V_{EBO}$	-5	V
Continues Collector Current	$I_C$	-200	mA
Collector Power Dissipation	$P_C$	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	$T_J$	150	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55~150	$^{\circ}C$

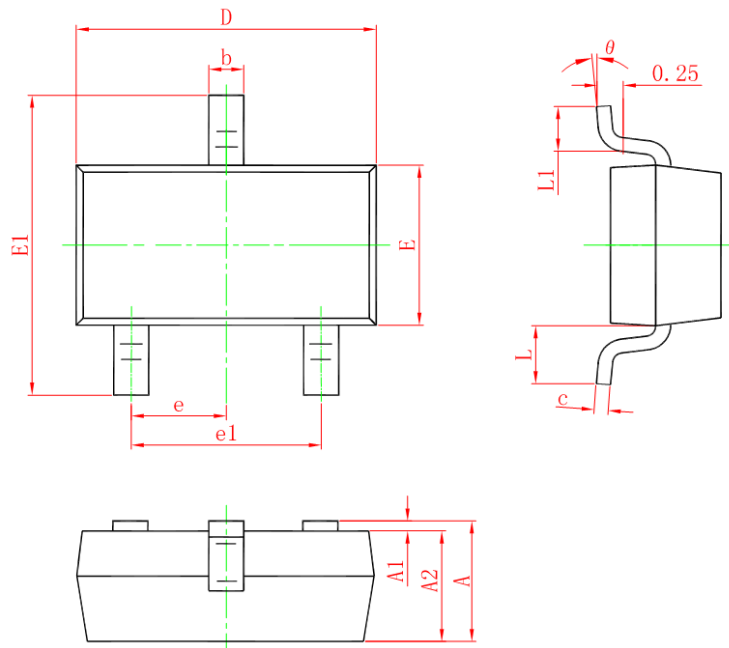
**Electronics Characteristics (Ta=25°C, unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C=-1mA, I_B=0mA$	-40			V
Collector-base breakdown voltage	$BV_{CBO}$	$I_C=10\mu A, I_E=0mA$	-40			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E=-10\mu A, I_C=0mA$	-5			V
Collector cutoff current	$I_{CEX}$	$V_{CE}=-30V, V_{EB(OFF)}=-3V$			-50	nA
Collector cutoff current	$I_{CBO}$	$V_{CB}=-40V, I_E=0A$			-100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB}=-5V, I_C=0A$			-100	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50mA, I_B=-5mA$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-50mA, I_B=-5mA$			-0.95	V
DC current gain	$h_{FE}$	$I_C=-10mA, V_{CE}=-1V$	100		300	
	$h_{FE}$	$I_C=-50mA, V_{CE}=-1V$	60			
	$h_{FE}$	$I_C=-100mA, V_{CE}=-1V$	30			
Transition frequency	$f_T$	$V_{CE}=-20V, I_C=-10mA,$ $f=100MHz$	250			MHz
Noise figure	NF	$I_C=-100\mu A; V_{CE}=-5V;$ $R_S=1k\Omega;$ $f=10Hz$ to $15.7kHz$			4	dB
Delay time	$t_d$	$V_{CC}=-3V, V_{BE(off)}=-0.5V$			35	ns
Rise time	$t_r$	$I_C=-10mA, I_{B1}=-1mA$			35	ns
Storage time	$t_s$	$V_{CC}=-3V, I_C=-10mA,$			225	ns
Fall time	$t_f$	$I_{B1}= I_{B2}=-1mA$			75	ns

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


$V_{CE} = -1$  V.

DC current gain; typical values.

**Package outline dimensions**
**SOT-23**


Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.500	0.100
A2	0.900	0.975	1.050
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
E1	2.250	2.400	2.550
e	0.950TYP		
e1	1.800	1.900	2.000
L	0.500REF		
L1	0.300	0.400	0.500
$\theta$	0°	4°	8°

**Recommend PCB Layout (Unit: mm)**
