

WPT2K37

Single, PNP, -60V, -1A, Power Transistor

Descriptions

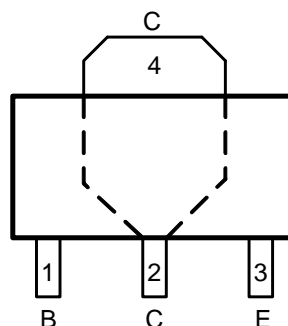
Low frequency power amplifier complementary pair with WNT2K36.



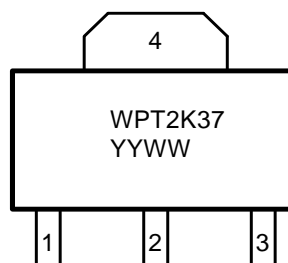
SOT-89-3L

Features

- Ultra low collector-to-emitter saturation voltage
- High DC current gain >100
- 1A continue collector current
- Small package SOT-89-3L.



Pin configuration (Top view)



WPT2K37 = Device code
 YY = Year
 WW = Week
Marking

Applications

- Charging circuit
- Power regulator
- Linear amplifier
- Other power management

Order information

Device	Package	Shipping
WPT2K37-3/TR	SOT-89-3L	1000/Reel&Tape

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CEO}	-60	V
Collector-base voltage	V_{CBO}	-80	V
Emitter-base voltage	V_{EBO}	-8	V
Continues collector current ^a	I_C	-2	A
Continues collector current ^b		-1	A
Pulse collector current ^c	I_{CM}	-6	A
Power dissipation ^a	P_D	1	W
Power dissipation ^b		0.5	W
Junction Temperature	T_J	150	°C
Lead Temperature	T_L	260	°C
Storage Temperature Range	T_{stg}	-55~150	°C

a Surface mounted on FR-4 Board using 1 square inch pad size, 1oz copper

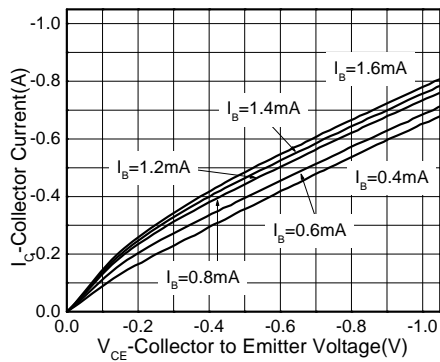
b Surface mounted on FR-4 board using minimum pad size, 1oz copper

c Pulse width=300μs, Duty Cycle<2%

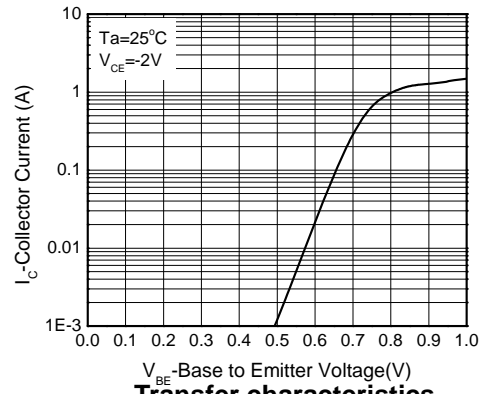
Electronics Characteristics (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	BV_{CEO}	$I_C=-10mA, I_B=0mA$	-60			V
Collector-base breakdown voltage	BV_{CBO}	$I_C=-100uA, I_E=0mA$	-80			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=-1mA, I_C=0mA$	-8			V
Collector cutoff current	I_{CBO}	$V_{CB}=-70V, I_E=0mA$		-3	-100	nA
Emitter cutoff current	I_{EBO}	$V_{BE}=-8V, I_C=0mA$		-0.3	-100	nA
Collector-emitter saturation voltage ^c	$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$			-0.4	V
Base-emitter forward voltage	$V_{BE(sat)}$	$I_C=-500mA, V_{CE}=-2V$			-1.1	V
DC current gain ^c	h_{FE}	$I_C=-500mA, V_{CE}=-2V$	60	150	320	
DC current gain ^c	h_{FE}	$I_C=-50mA, V_{CE}=-2V$	100	170	320	

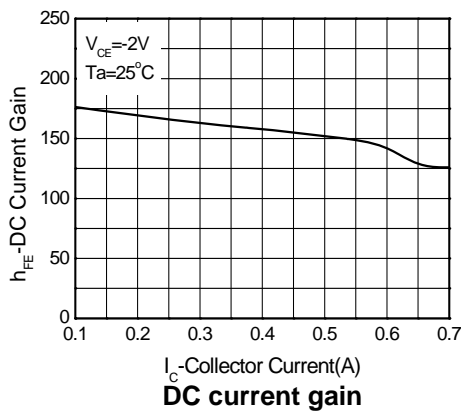
Typical Characteristics (Ta=25°C, unless otherwise noted)



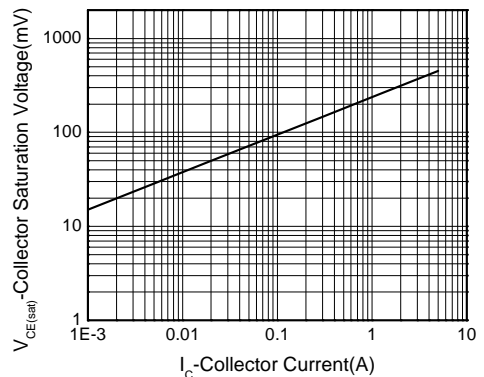
Output characteristics



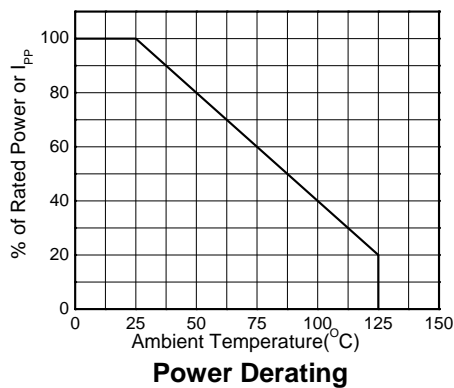
Transfer characteristics



DC current gain



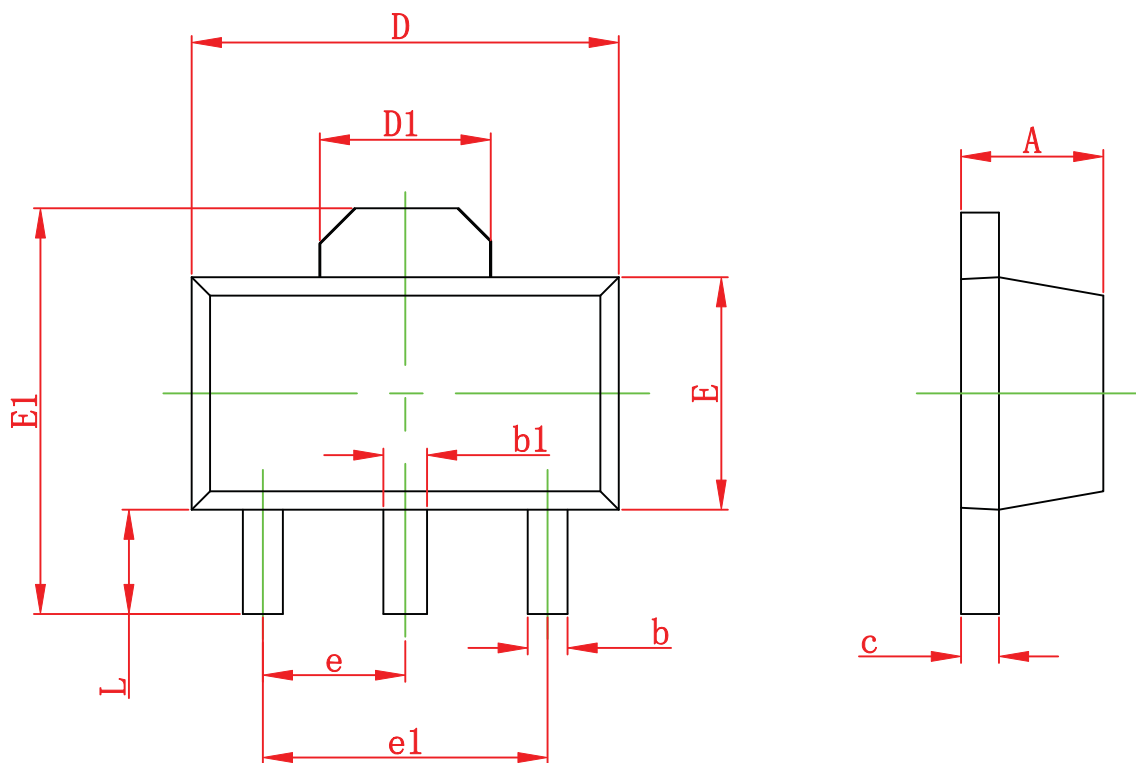
C-E saturation voltage vs. Collector current



Power Derating

Package outline dimensions

SOT-89-3L



Symbol	Dimensions in Millimeters	
	Min.	Max.
A	1.400	1.600
b	0.320	0.520
b1	0.400	0.580
c	0.350	0.440
D	4.400	4.600
D1	1.550 Ref.	
E	2.300	2.600
E1	3.940	4.250
e	1.500 Typ.	
e1	3.000 Typ.	
L	0.900	1.200