

FEATURES

Power dissipation

MARKING:D882

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

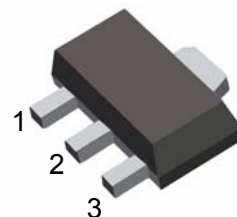
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	0.5	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



ELECTRICAL CHARACTERISTICS($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$, $I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}$, $I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40\text{V}$, $I_E=0$			1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 30\text{V}$, $I_B=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6\text{V}$, $I_C=0$			1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2\text{V}$, $I_C = 1\text{A}$	60		400	
	$h_{FE(2)}$	$V_{CE}=2\text{V}$, $I_C = 100\text{mA}$	32			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{A}$, $I_B = 0.2\text{A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2\text{A}$, $I_B = 0.2\text{A}$			1.5	V
Transition frequency	f_T	$V_{CE} = 5\text{V}$, $I_C=0.1\text{A}$ $f = 10\text{MHz}$	50			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

Typical characteristics

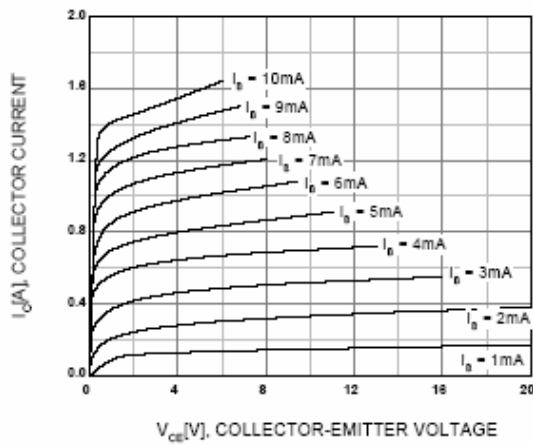


Figure 1. Static Characteristic

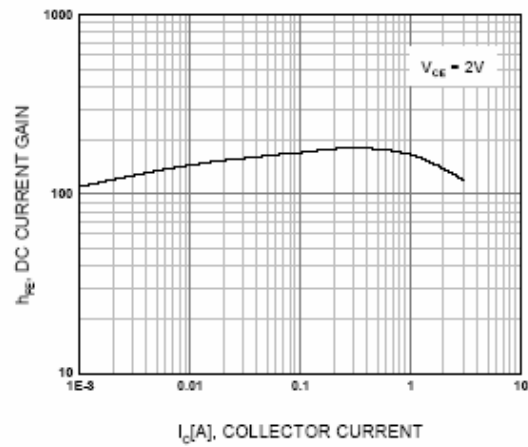


Figure 2. DC current Gain

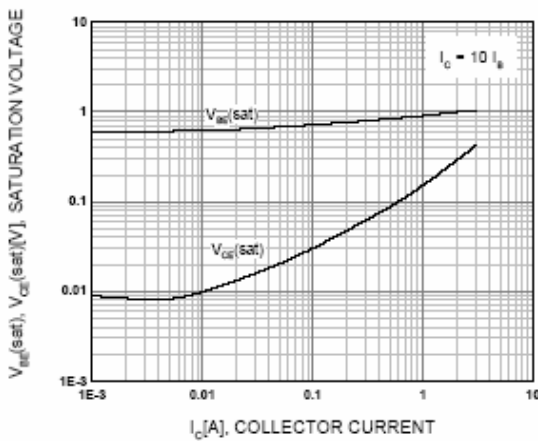


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

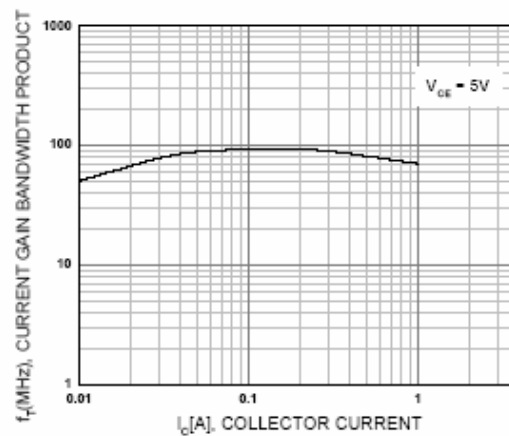


Figure 4. Current Gain Bandwidth Product

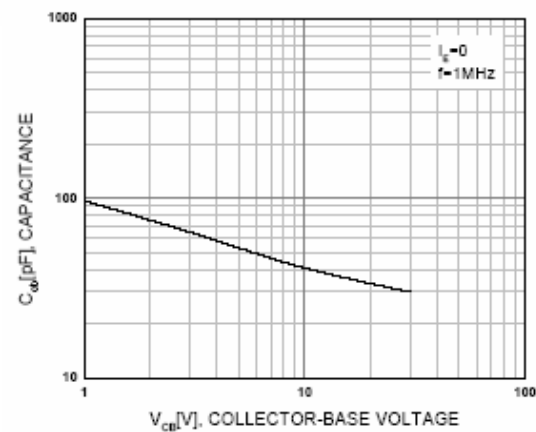
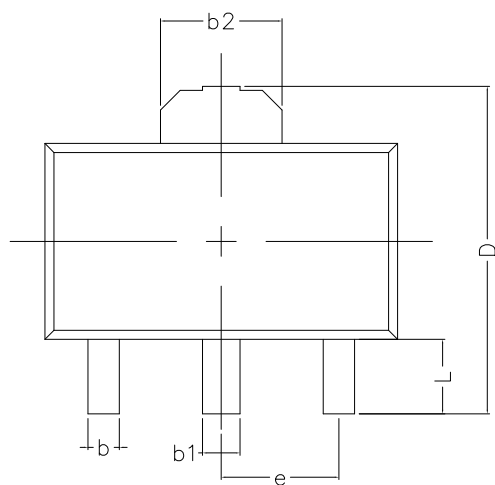
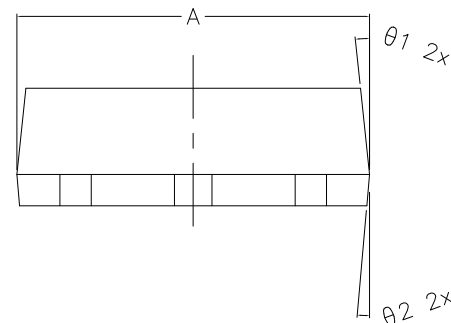
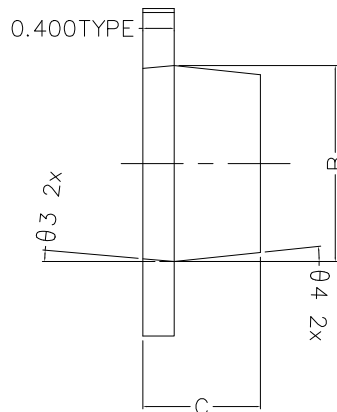


Figure 5. Collector Output Capacitance



TOP VIEW



COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	4.450	4.550	4.650
B	2.450	2.550	2.650
C	1.400	1.500	1.600
D	4.100	4.200	4.300
L	0.850	0.950	1.050
b	0.350	0.400	0.450
b1	0.430	0.480	0.530
b2	1.500	1.550	1.600
e	1.500TYPE		
$\theta 1$	6° TYPE		
$\theta 2$	5° TYPE		
$\theta 3$	5° TYPE		
$\theta 4$	6° TYPE		

WPMtek reserves the right to make changes to the product specification and data in this document without notice. WPMtek makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does WPMtek assume any liability arising from the application or use of any products or circuits, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Any enquiry, please write to sales@wpmtek.com for further information.