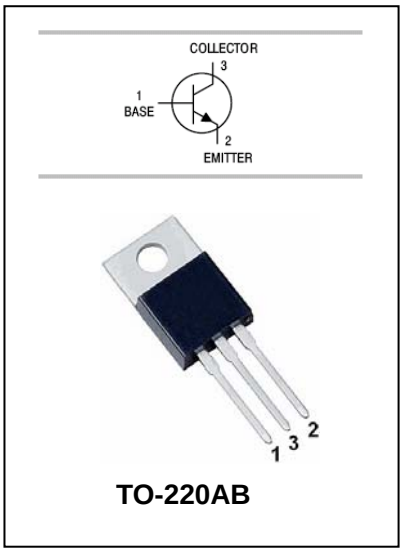
Power Transistor(60V,3A) 2SD1913

FEATURES

- Wide ASO (Adoption of MBIT process).
- Low saturation voltage.
- High reliability.
- High breakdown voltage.
- Micaless package facilitating mounting

Lead-free



TO-220AB

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	3	A
P_C	Collector Dissipation	2	W
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	℃

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ELECTRICAL CHARACTERISTICS Ratings at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbol	Test conditions	MIN	Typ	MAX	UNIT
Collector-base Breakdown Voltage	BV_{CBO}	I_C=1mA,I_B=0	60			V
Collector-emitter Breakdown Voltage	BV_{CEO}	I_C=5mA,I_B=0	60			V
Emitter-base Breakdown Voltage	BV_{EBO}	I_E=1mA,I_C=0	6			V
Collector Cut-off Current	I_{CBO}	V_{CB}=40V,I_E=0			100	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=4V,I_C=0			100	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=5V,I_C=0.5A	70		280	
	$h_{FE(2)}$	V_{CE}=5V,I_C=3A	20			
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	I_C=2A, I_B=0.2A		0.4	1	V
Base-emitter Voltage	V_{BE}	I_C=-0.5A, V_{CE}=-5V		0.8	1	V
Output Capacitance	C_{ob}	V_{CB}=10V,f=1MHz,		40		pF
Transition Frequency	f_T	V_{CE}=5V, I_E=0.5A		100		MHz

CLASSIFICATION OF $h_{FE(1)}$

Range	Q	R	S
Marking	70-140	100-200	140-280

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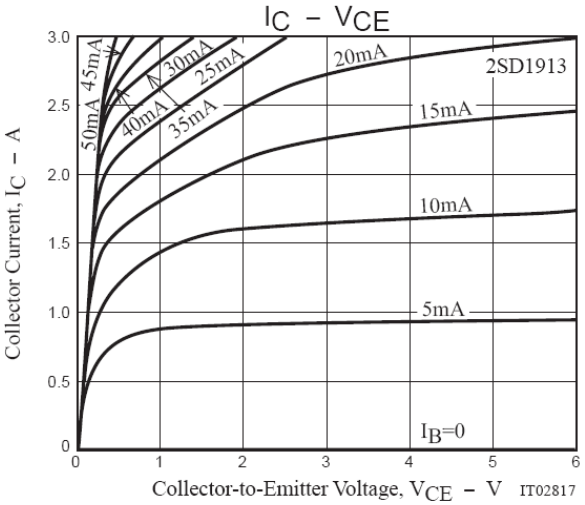
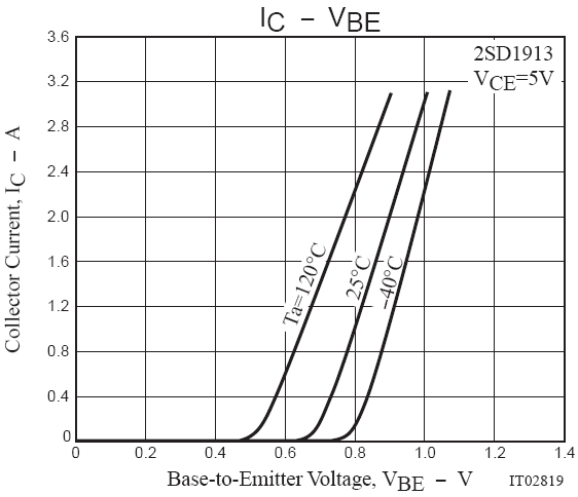
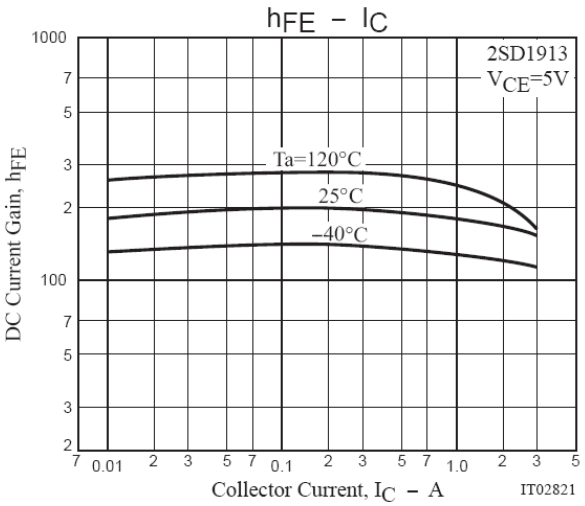
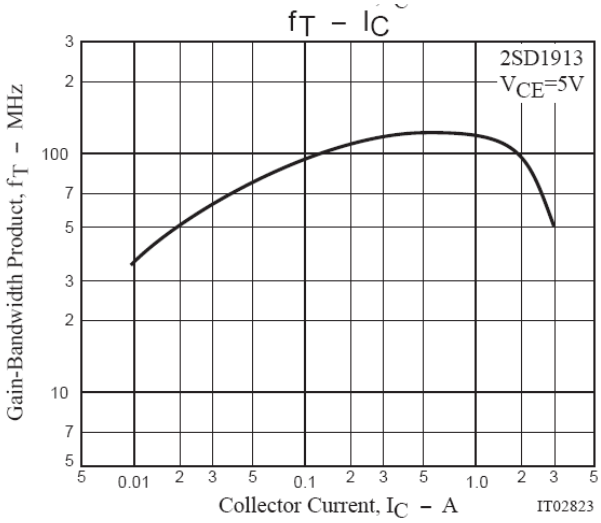
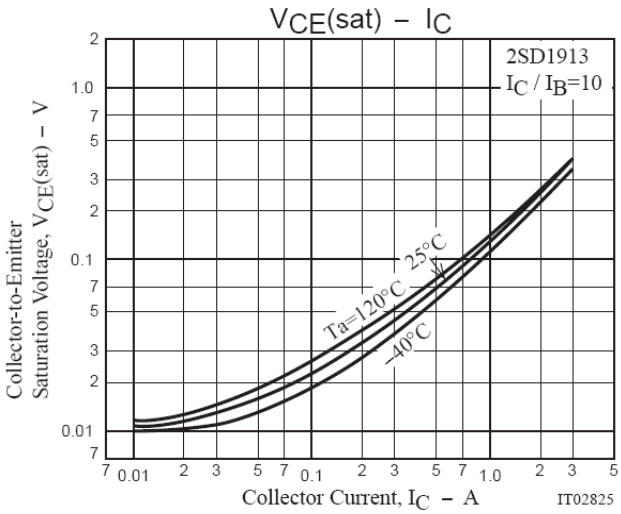
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

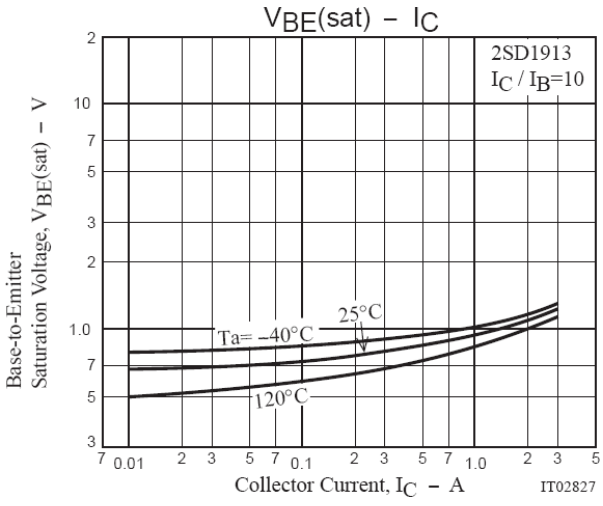












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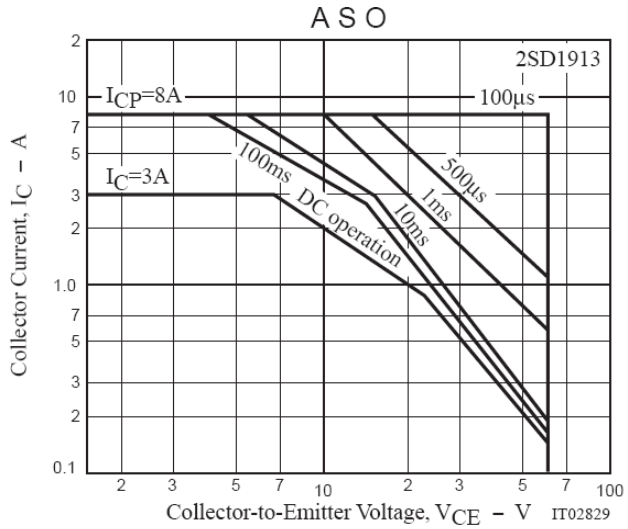

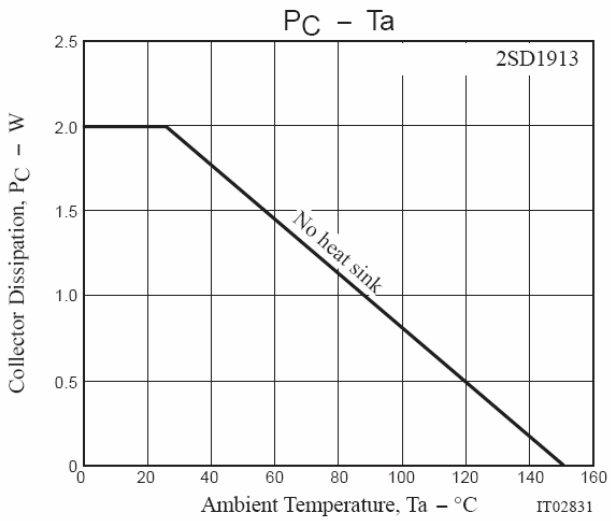

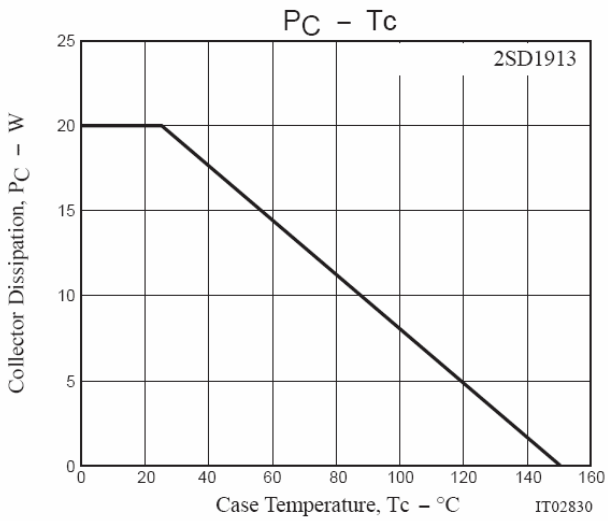

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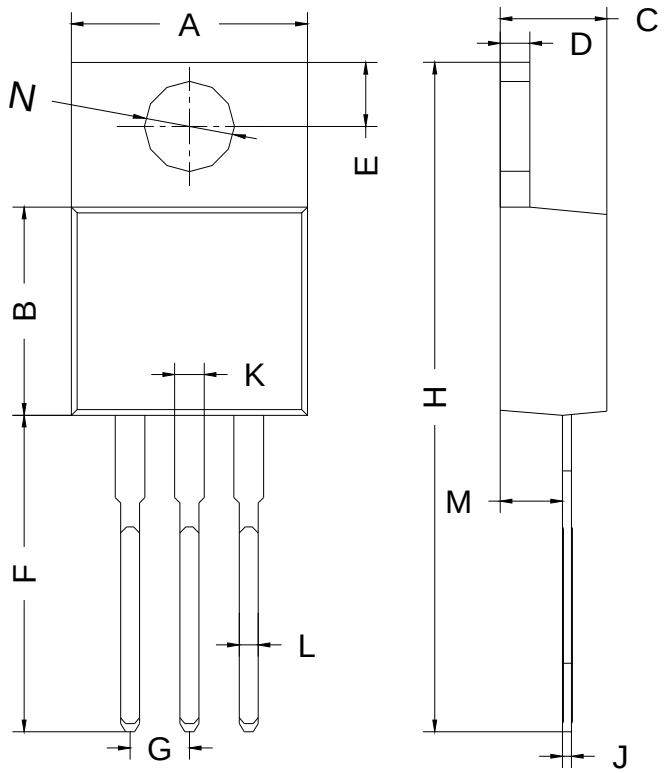
PACKAGE OUTLINE

Plastic surface mounted package TO-220AB



TO-220AB		
Dim	Min	Max
A	9.80	10.30
B	8.70	9.10
C	4.57 Typical	
D	1.27 Typical	
E	2.64	2.84
F	13.14	13.74
G	2.44	2.64
H	28.03	28.83
J	0.38 Typical	
K	1.22	1.32
L	0.71	0.91
M	2.50 Typical	
N	3.86 Typical	
All Dimensions in mm		