

isc Silicon PNP Power Transistor

2SB1231

DESCRIPTION

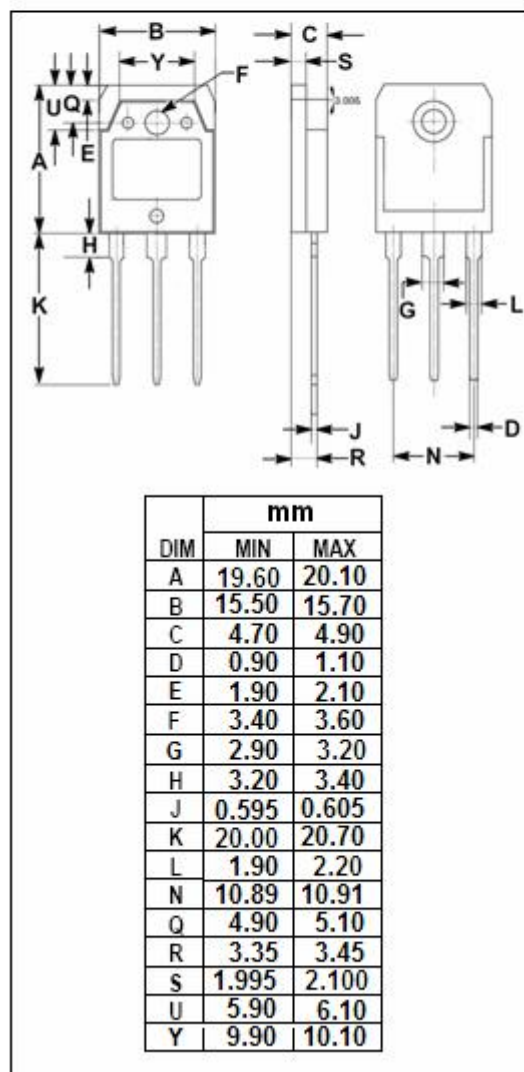
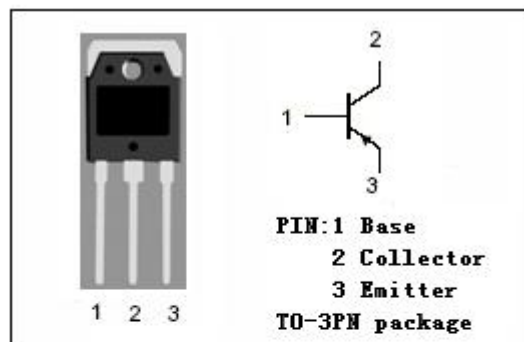
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -100V(\text{Min})$
- High Current Capability
- Wide Area of Safe Operation
- Complement to Type 2SD1841
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for motor drivers, converters and other general High-current switching applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-110	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-25	A
I_{CP}	Collector Current-Pulse	-40	A
I_B	Base Current-Continuous	-8	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	3	W
	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	120	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon PNP Power Transistor**2SB1231****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -5\text{mA}$; $R_{BE} = \infty$	-100			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}$; $I_E = 0$	-110			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}$; $I_C = 0$	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}$; $I_B = -1\text{A}$			-0.8	V
$V_{BE(sat)}$	Base -Emitter Saturation Voltage	$I_C = -10\text{A}$; $I_B = -1\text{A}$			-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}$; $I_E = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-100	μA
h_{FE-1}	DC Current Gain	$I_C = -2.5\text{A}$; $V_{CE} = -2\text{V}$	50		140	
h_{FE-2}	DC Current Gain	$I_C = -10\text{A}$; $V_{CE} = -2\text{V}$	20			

◆ **h_{FE-1} Classifications**

P	Q
50-100	70-140

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