

isc Silicon PNP Darlington Power Transistor
2SB1478
DESCRIPTION

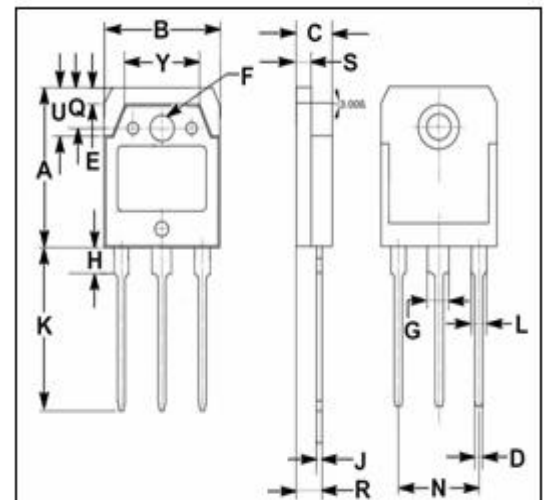
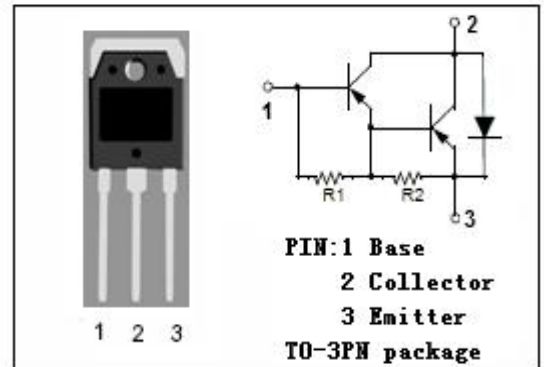
- High DC Current Gain-
: $h_{FE} = 2000(\text{Min}) @ I_C = -2\text{A}$
- Low Collector Saturation Voltage-
: $V_{CE(\text{sat})} = -2.0\text{V}(\text{Max.}) @ I_C = 5\text{A}$
- Complement to Type 2SD2237
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power linear and switching applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	60	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

isc Silicon PNP Darlington Power Transistor**2SB1478****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	$I_C = -10\text{mA}$, $I_B = 0$	-100			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -50\ \mu\text{A}$; $I_E = 0$	-100			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage 	$I_E = -2\text{mA}$; $I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}$, $I_B = -20\text{mA}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}$, $I_B = -20\text{mA}$			-2.5	V
I_{CBO}	Collector Cutoff current	$V_{CB} = -100\text{V}$, $I_E = 0$			-10	μA
I_{EBO}	Emitter Cutoff current	$V_{EB} = -5\text{V}$, $I_C = 0$			-2	mA
h_{FE}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -3\text{V}$	2000		20000	

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