

Silicon PNP Darlington Power Transistor

2SB1478

DESCRIPTION

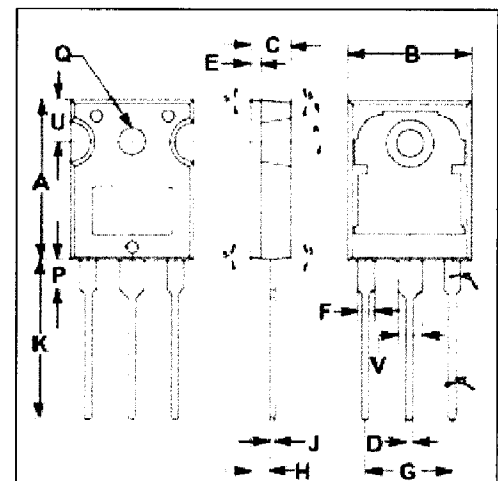
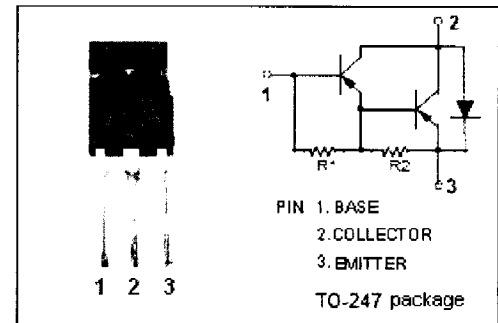
- High DC Current Gain-
 : $h_{FE} = 2000(\text{Min}) @ I_C = -2\text{A}$
- Low Collector Saturation Voltage-
 : $V_{CE(\text{sat})} = -2.0\text{V}(\text{Max.}) @ I_C = 5\text{A}$
- Complement to Type 2SD2237

APPLICATIONS

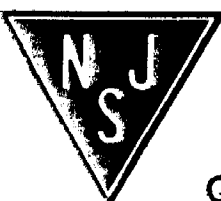
- Designed for power linear and switching applications.

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	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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	