

isc Silicon PNP Darlington Power Transistor

MP1620

DESCRIPTION

- With TO-3PN packaging
- Very high DC current gain
- Monolithic darlington transistor with integrated antiparallel collector-emitter diode
- Complement to type MJH6284
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

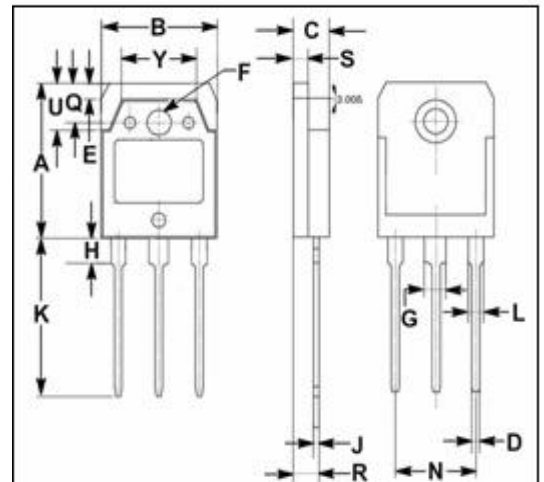
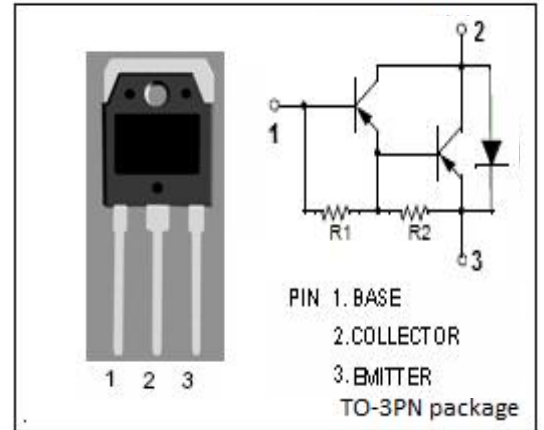
- AC-DC motor control
- Electronic ignition
- Alternator regulator

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-10	A
I _B	Base Current	-1	A
P _C	Collector Power Dissipation	150	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.78	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	62.5	°C/W



DIM	mm	
	MIN	MAX
A	19.60	20.30
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	19.80	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	6.20
Y	9.90	10.10

isc Silicon PNP Darlington Power Transistor**MP1620****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}, I_B = 0$	-150		V
$V_{CE(sat)1}$	Collector-Emitter Saturation Voltage	$I_C = -7\text{A}, I_B = -7\text{mA}$		-2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -7\text{A}, I_B = -7\text{mA}$		-3.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -160\text{V}, I_E = 0$		-0.1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -150\text{V}, I_B = 0$		-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}, I_C = 0$		-0.1	mA
h_{FE-1}	DC Current Gain	$I_C = -7\text{A}; V_{CE} = -4\text{V}$	5000	30000	

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