

isc Silicon PNP Darlington Power Transistor

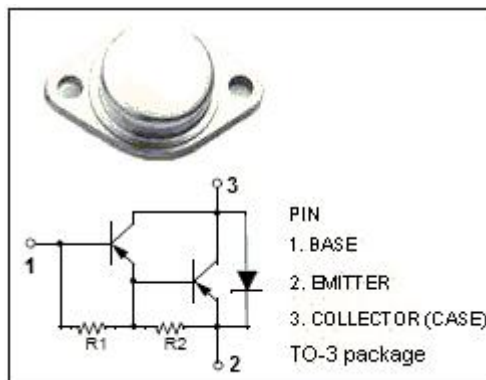
MJ11015

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -120V(\text{Min.})$
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min.}) @ I_C = -20A$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -3.0V(\text{Max.}) @ I_C = -20A$
- Complement to the NPN MJ11016

APPLICATIONS

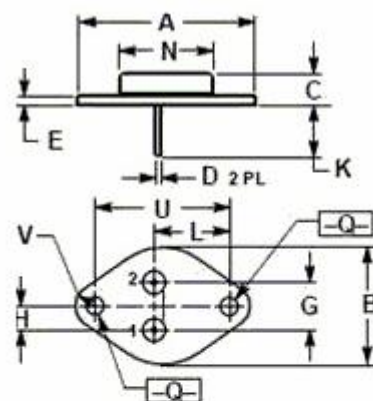
- Designed for use as output devices in complementary general purpose amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-30	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	200	W
T_j	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~+200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.87	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A		39.00
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G		10.92
H		5.46
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

isc Silicon PNP Darlington Power Transistor**MJ11015****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -50mA; I _B = 0	-120			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -20A; I _B = -0.2A			-3.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -30A; I _B = -0.3A			-4.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = -20A; I _B = -0.2A			-3.5	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = -30A; I _B = -0.3A			-5.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} =-120V; I _E =0 V _{CB} =-120V; I _E =0; T _C =150°C			-1.0 -5.0	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = -120V; I _B = 0			-1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-5.0	mA
h _{FE-1}	DC Current Gain	I _C = -20A, V _{CE} = -5V	1000			
h _{FE-2}	DC Current Gain	I _C = -30A, V _{CE} = -5V	200			