MOSPEC

Silicon NPN Darlington Power Transistor

NPN

MJ11032

50 AMPERES
POWER
DARLINGTON
TRANSISTOR
120 VOLTS
300 WATTS

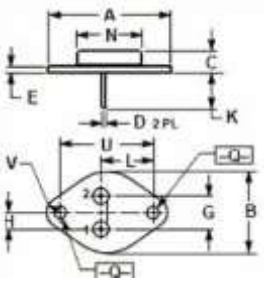
DESCRIPTION :

- High DC Current Gain-
  h_{FE} = 1000(Min.) @Ic=25A
  h_{FE} = 400(Min.) @Ic=50A
- Collector-Emitter Breakdown Voltage
  $V_{(BR)CEO}$ = 120V(Min)
- Complement to the PNP MJ11033
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS :

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

TO-3



PIN 1.BASE.
2.EMITTER
COLLECTOR(CASE)

DIM	MILLIMETERS	
	MIN	MAX
A	39.00	
B	25.2	26.67
C	8.30	8.90
D	1.45	1.60
E	1.50	1.70
G	11.00	
H	5.50	
K	10.50	13.50
L	16.75	17.05
N	19.40	19.62
O	4.00	4.20
U	29.00	31.00
V	4.00	4.20

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	50	A
Collector Current-Peak	I_{CM}	100	A
Base Current-Continuous	I_B	2	A
Collector Power Dissipation @Tc=25℃	P_C	300	Watts
Max. Junction Temperature	T_J	200	°C
Storage Temperature Range	T_{STG}	-55 to +200	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{th\ j\text{-}c}$	0.584	°C/W

ELECTRICAL CHARATERISTICS (T_C=25^{O}C unless otherwise noted)

Characteristic	Symbol	Min.	Max.	Unit
OFFCHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I_C = 50 mA, I_B = 0)	$V_{(BR)CEO}$	120		V
Collector Cutoff Current (V_{CB}= 120 V, I_E= 0)	I_{CBO}		2.0	mA
Collector Cutoff Current (V_{CE}= 120 V, I_B= 0)	I_{CEO}		2.0	mA
Emitter Cutoff Current (V_{EB}= 5 V, I_C = 0)	I_{EBO}		5.0	mA
ON CHARACTERISTICS(1)				
DC Current Gain (I_C = 25 A, V_{CE} = 5 V) (I_C = 50 A, V_{CE} = 5 V)	h_{FE}	1000 400	18000	
Collector-Emitter Saturation Voltage (I_C = 25 A, I_B = 250 mA) (I_C = 50 A, I_B = 500 mA)	$V_{CE(SAT)}$		2.5 3.5	V
Base-Emitter Saturation Voltage (I_C = 25 A, I_B = 250 mA) (I_C = 50 A, I_B = 500 mA)	$V_{BE(SAT)}$		3.0 4.5	V

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