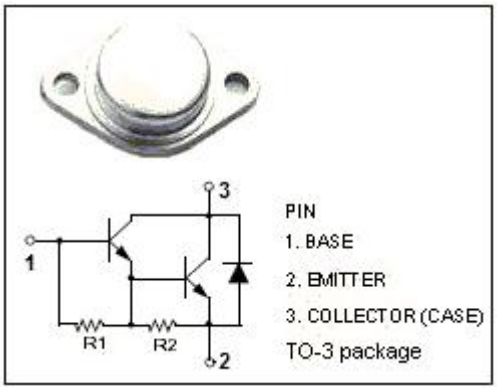
isc Silicon NPN Darlingtion Power Transistor 2SD730

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 100V(Min.)
- High DC Current Gain-
  : h_{FE}= 1000(Min.)@I_C= 12A
- Low Collector Saturation Voltage-
  : $V_{CE\ (sat)}$= 3.0V(Max.)@ I_C= 20A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

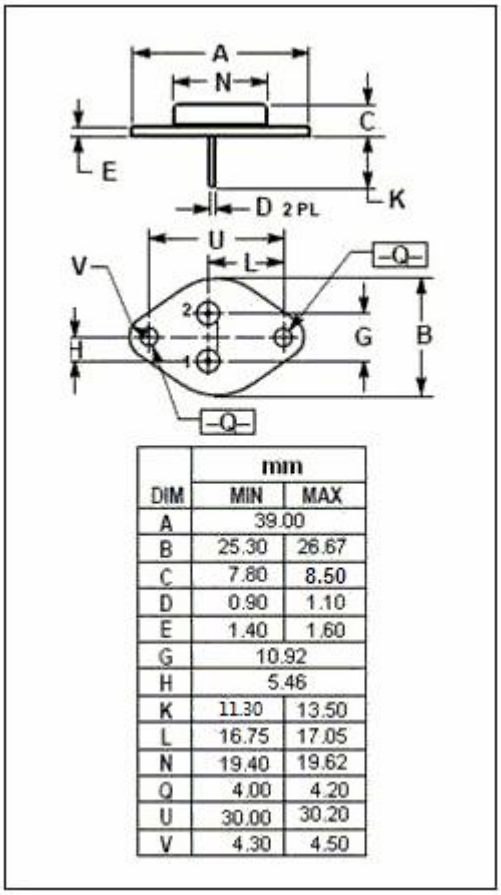


APPLICATIONS

- Power switching
- Hammer drivers
- Series and shunt regulator
- General purpose amplifier amplifiers

ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	7.0	V
I_C	Collector Current -Continuous	25	A
I_{CP}	Collector Current-Peak	40	A
I_B	Base Current	0.5	A
P_C	Collector Power Dissipation@T_C=25℃	125	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA ; I_B= 0	100		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 12A; I_B= 0.12A		2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 20A; I_B= 0.2A		3.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation voltage	I_C= 12A; I_B= 0.12A		3.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation voltage	I_C= 20A; I_B= 0.2A		4.0	V
I_{CEO}	Collector Cutoff current	V_{CE}= 100V; I_B= 0		1.0	mA
I_{CBO}	Collector Cutoff current	V_{CB}= 100V; I_E= 0		0.5	mA
I_{EBO}	Emitter Cut-off current	V_{EB}= 7V; I_C= 0		7.5	mA
h_{FE-1}	DC Current Gain	I_C= 5A; V_{CE}= 3V	2000		
h_{FE-2}	DC Current Gain	I_C= 12A; V_{CE}= 3V	1000	20000	
h_{FE-3}	DC Current Gain	I_C= 20A; V_{CE}= 3V	750		
Switching Times					
t_{on}	Turn-on Time	V_{CC}= -30V; I_C= 12A; I_{B1}= -I_{B2}= -0.12A, t_p= 300 μ s; Duty Cycle≤2.0%		2.0	μ s
t_f	Fall Time			8.0	μ s

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