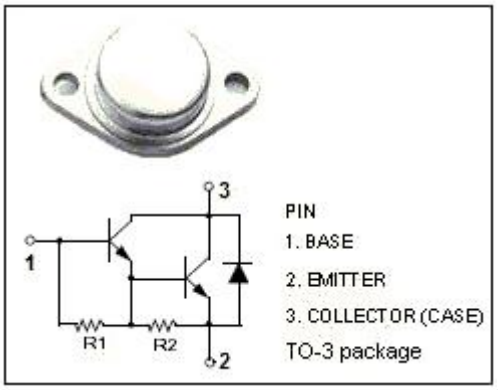
isc Silicon NPN Darlington Power Transistor 2SD693

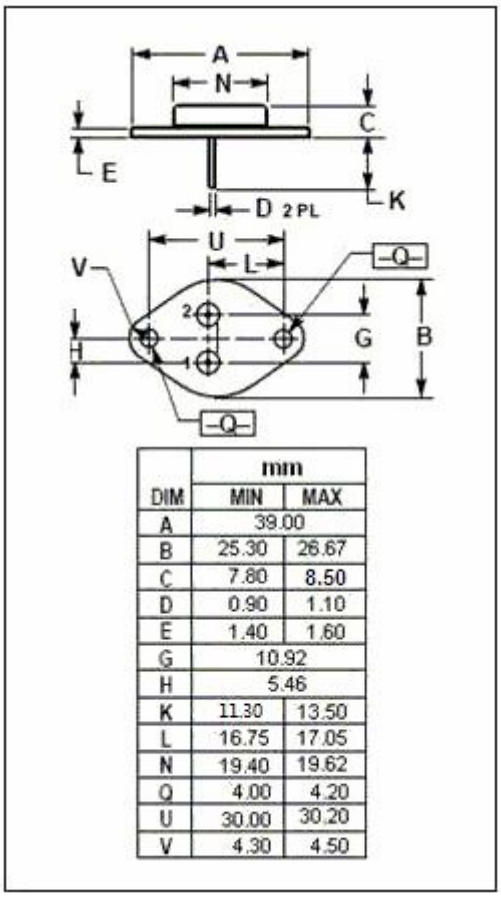
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  $V_{CEO(SUS)}$= 450V(Min)
- High Power Dissipation
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for line operated switchmode applications such as:
- Switching regulators
- Inverters
- Solenoid and relay drivers



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	450	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current	10	A
I_{CM}	Collector Current-peak	15	A
I_B	Base Current	1	A
P_C	Collector Power Dissipation @T_C=25℃	80	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	450			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	450			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 10mA; I_C= 0	10			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 10mA			1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 40mA			2.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 10mA			2.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 40mA			2.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}=450V; I_E=0			0.1	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 450V;I_B= 0			0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 10V; I_C= 0			10	mA
h_{FE}	DC Current Gain	I_C= 5A; V_{CE}= 5V	150			