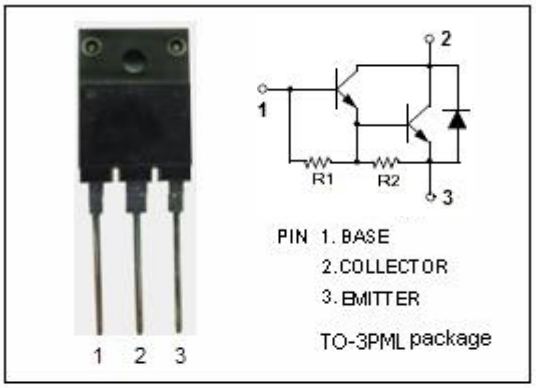
isc Silicon NPN Darlington Power Transistor 2SD2093

DESCRIPTION

- Micaless package facilitating mounting.
- Large current capacity and large ASO.
- Low saturation volatage.
  : $V_{CE(sat)}$= 1.5V(Max) @I_C= 5A,I_B=10mA
- High DC Current Gain
  : h_{FE}= 1500(Min) @ I_C= 5A, V_{CE}= 3V
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

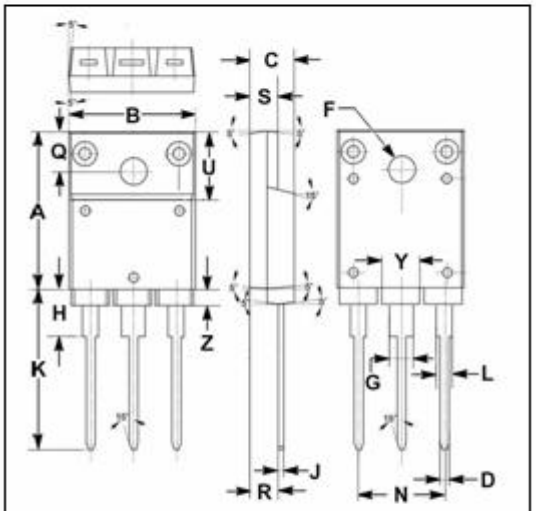


APPLICATIONS

- Designed for Motor drivers, printer hammer drivers relay drivers,voltage regulator control applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	110	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
P_C	Collector Power Dissipation @ T_C=25℃	45	W
	Collector Power Dissipation @ T_a=25℃	3	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; R_{BE}= ∞	100			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	110			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=5A; I_B= 10mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 10mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 80V; I_E= 0			100	μA
I_{EbO}	Collector Cutoff Current	V_{Eb}= 5V; R_{BE}= ∞			3	mA
h_{FE}	DC Current Gain	I_C= 5A; V_{CE}= 3V	1500			