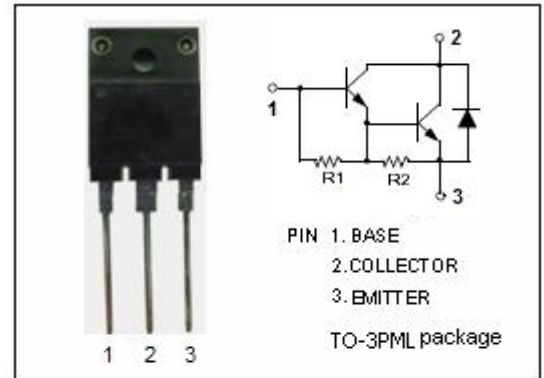


isc Silicon NPN Darlington Power Transistor
2SD2093
DESCRIPTION

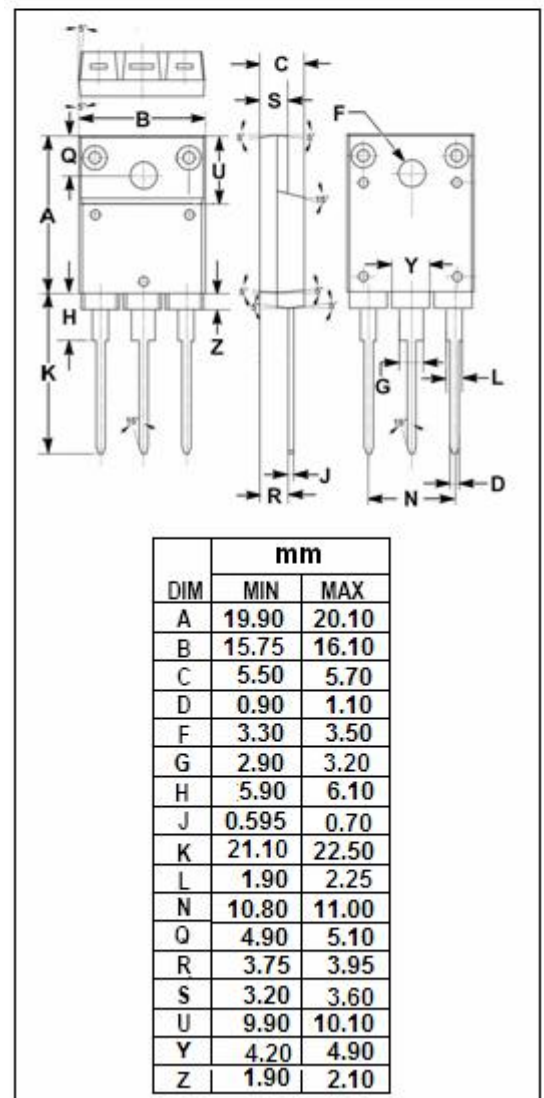
- Micaless package facilitating mounting.
- Large current capacity and large ASO.
- Low saturation volatage.
: $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 5A, I_B = 10mA$
- High DC Current Gain
: $h_{FE} = 1500(\text{Min}) @ I_C = 5A, V_{CE} = 3V$
- Minimum Lot-to-Lot variations for robust device performance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


APPLICATIONS

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

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

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 @ $T_C = 25^\circ\text{C}$	45	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	3	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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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 = 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	μ A
I _{EBO}	Collector Cutoff Current	V _{EB} = 5V; R _{BE} = ∞			3	mA
h _{FE}	DC Current Gain	I _C = 5A; V _{CE} = 3V	1500			

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