

isc Silicon NPN Darlington Power Transistor

TTD1415B

DESCRIPTION

- High DC Current Gain-
: $h_{FE} = 2000(\text{Min}) @ I_C = 3A$
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(\text{sat})} = 1.5V(\text{Max}) @ I_C = 3A$
- Complement to Type TTB1020B
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

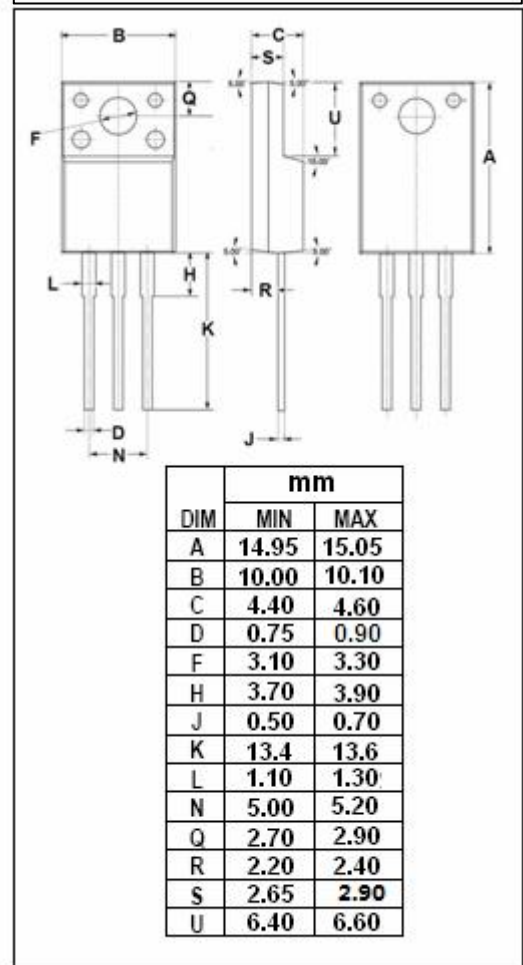
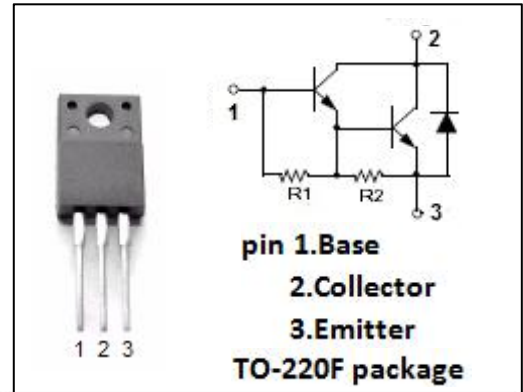
- Designed for general-purpose amplifier and low-speed switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\text{-}j-c}$	Thermal Resistance, Junction to Case	5.0	$^\circ\text{C/W}$



isc Silicon NPN Darlington Power Transistor**TTD1415B****ELECTRICAL CHARACTERISTICS****T_C=25°C 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)}	Collector-Emitter Saturation Voltage	I _C = 6A, I _B = 6mA		1.5	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C = 6A, I _B = 6mA		2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V, I _E = 0		2	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0	0.75	3	mA
h _{FE-1}	DC Current Gain	I _C = 3A; V _{CE} = 3V	2000	15000	
h _{FE-2}	DC Current Gain	I _C = 6A; V _{CE} = 3V	1000		

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