

isc Silicon NPN Power Transistors

TIPL765

DESCRIPTION

- 125W at 25°C case temperature
- 10A continue collector current
- High-voltage,high forward and reverse energy
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

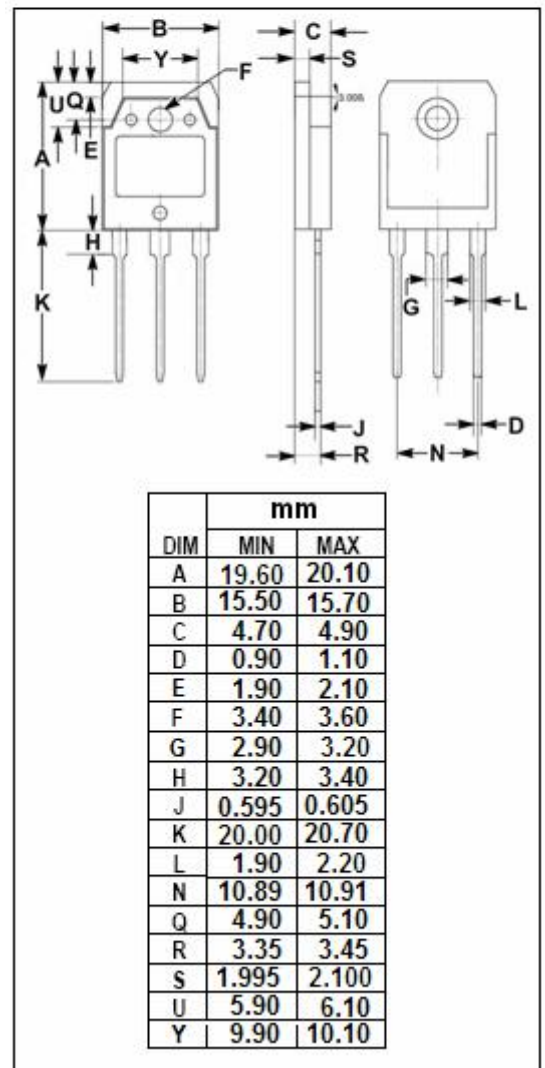
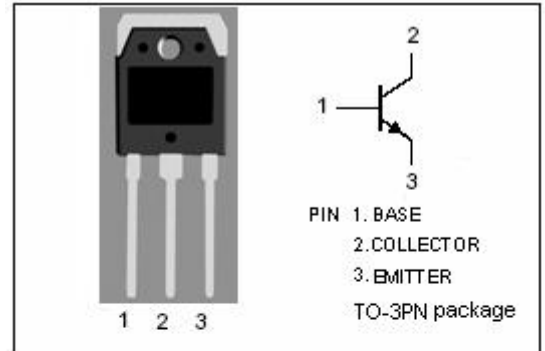
- Designed for automotive ignition and switching regulator applications
- Characterized for operation in ignition and switching regulator Applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	850	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current -Continuous	10	A
I_{CM}	Collector Current-peak	15	A
P_C	Collector Power Dissipation@ $T_c=25^{\circ}\text{C}$	125	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	1	$^{\circ}\text{C/W}$



isc Silicon NPN Power Transistors**TIPL765****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CE(sus)} *	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B = 0	400		V
V _{CE(sat)-1} *	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A		0.5	V
V _{CE(sat)-2} *	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 1A		1.0	V
V _{CE(sat)-3} *	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 2A		2.5	V
V _{BE(sat)-1} *	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A		1.1	V
V _{BE(sat)-2} *	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 1A		1.3	V
V _{BE(sat)-3} *	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 2A		1.7	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		1	mA
h _{FE} *	DC Current Gain	I _C = 0.5A; V _{CE} = 5V	15	60	

*:Pulse test PW≤300us,duty cycle≤1.5%

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