

isc Silicon NPN Darlington Power Transistor

TIPL760C

FEATURES

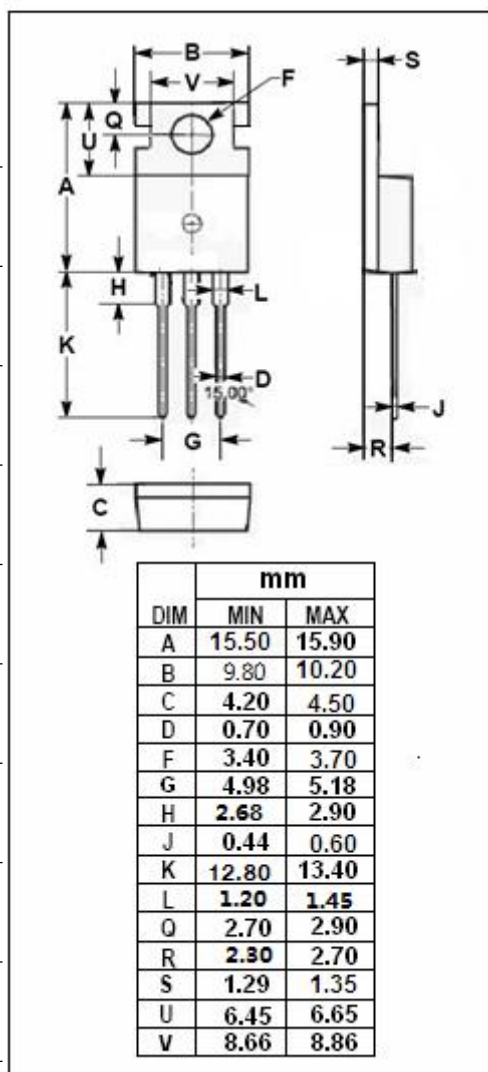
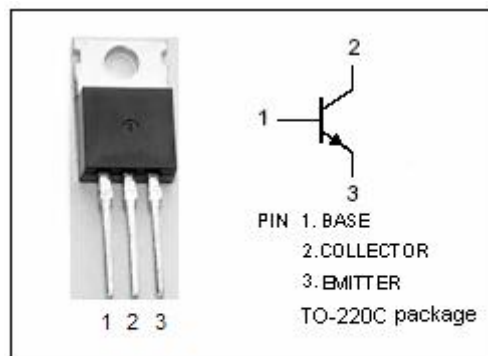
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 550V(\text{Min.})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

- Rugged Triple-diffused planar construction

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1200	V
V_{CEO}	Collector-Emitter Voltage	550	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Peak collector current	8	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	75	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

 $T_C = 25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}$	550			V
I_{CBO}	Base Cutoff current	$V_{CB} = 1200\text{V}, I_E = 0$			50	μA
		$V_{CB} = 1200\text{V}, I_E = 0, T_C = 100^\circ\text{C}$			200	
I_{CEO}	Collector Cutoff current	$V_{CE} = 550\text{V}, I_E = 0$			50	μA
I_{EBO}	Emitter Cutoff current	$V_{EB} = 10\text{V}, I_C = 0$			1	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 2\text{A}, I_B = 0.4\text{A}$			1.0	V
		$I_C = 3\text{A}, I_B = 0.6\text{A}$			2.5	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 2\text{A}, I_B = 0.4\text{A}$			1.2	V
		$I_C = 3\text{A}, I_B = 0.6\text{A}$			1.4	
h_{FE}	DC Current Gain	$I_C = 0.5\text{A}; V_{CE} = 5\text{V}$	20		60	
f_t	Current gain bandwidth product	$V_{CE} = 10\text{V}, I_C = 0.5\text{A}, f = 1\text{MHz}$		12		MHz

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