

**isc Silicon PNP Darlington Power Transistor**
**2SB765**
**DESCRIPTION**

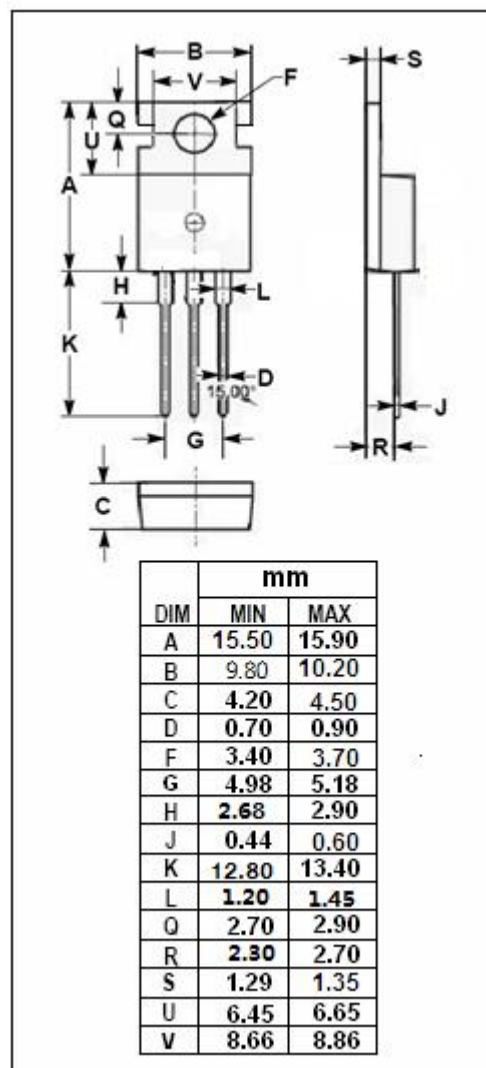
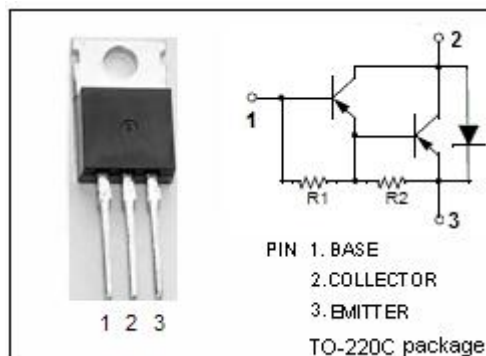
- High DC Current Gain-  
:  $h_{FE} = 1000(\text{Min})@ I_C = -1.5\text{A}$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -120\text{V}(\text{Min})$
- Low Collector-Emitter Saturation Voltage-  
:  $V_{CE(\text{sat})} = -1.5\text{V}(\text{Max})@ I_C = -1.5\text{A}$
- Complement to Type 2SD864
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Medium speed and power switching applications.

**ABSOLUTE MAXIMUM RATINGS (Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-120	V
$V_{CEO}$	Collector-Emitter Voltage	-120	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-3	A
$I_{CM}$	Collector Current-Peak	-6	A
$P_C$	Collector Power Dissipation $T_C = 25^\circ\text{C}$	30	W
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-55~150	°C



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**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -25mA, R <sub>BE</sub> = ∞	-120			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -50mA, I <sub>C</sub> = 0	-7			V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -1.5A, I <sub>B</sub> = -3mA			-1.5	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -3A, I <sub>B</sub> = -30mA			-3.0	V
V <sub>BE(sat)-1</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -1.5A, I <sub>B</sub> = -3mA			-2.0	V
V <sub>BE(sat)-2</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -3A, I <sub>B</sub> = -30mA			-3.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -120V, I <sub>E</sub> = 0			-100	μ A
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -100V, R <sub>BE</sub> = ∞			-10	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -1.5A; V <sub>CE</sub> = -3V	1000		20000	

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