

SEMICONDUCTOR TM

## **KSD5018**

### **Built-in Resistor at B-E for Motor Drive**

High Voltage Power Darlington TR

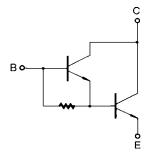


1.Base 2.Collector 3.Emitter

# **NPN Silicon Darlington Transistor**

Sym- bol	Parameter	Value	Units
V <sub>CBO</sub>	Collector- Base Voltage	600	V
V <sub>CEO</sub>	Collector- Emitter Voltage	275	V
V <sub>EBO</sub>	Emitter Base Voltage	10	V
Ι <sub>C</sub>	Collector Current (DC)	4	Α
I <sub>CP</sub>	*Collector Current (Pulse)	6	Α
Ι <sub>Β</sub>	Base Current	0.5	Α
P <sub>C</sub>	Collector Dissipation (T <sub>C</sub> =25°C)	40	W
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	- 55 ~ 150	°C

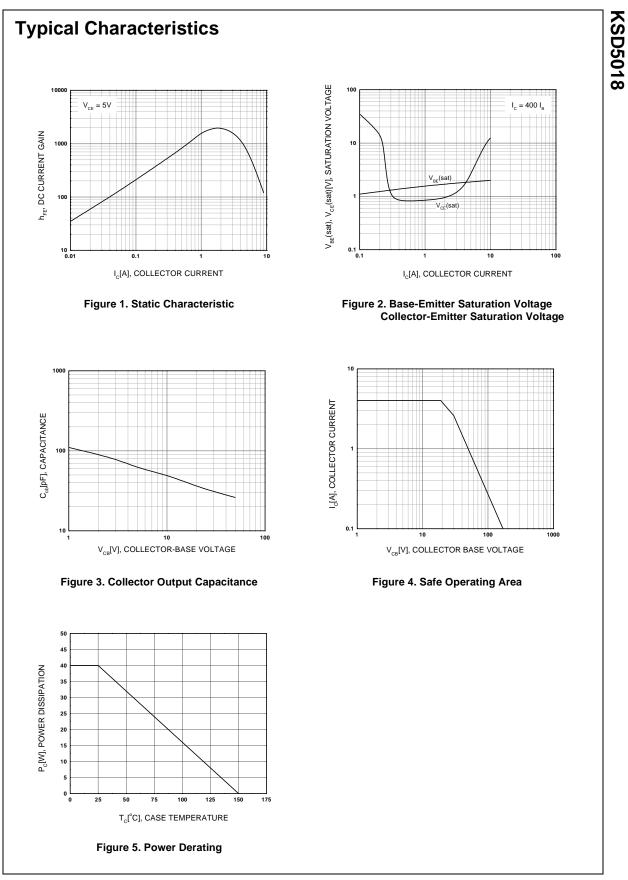
Absolute Maximum Ratings  $T_C=25^{\circ}C$  unless otherwise noted



### Electrical Characteristics $T_C=25^{\circ}C$ unless otherwise noted

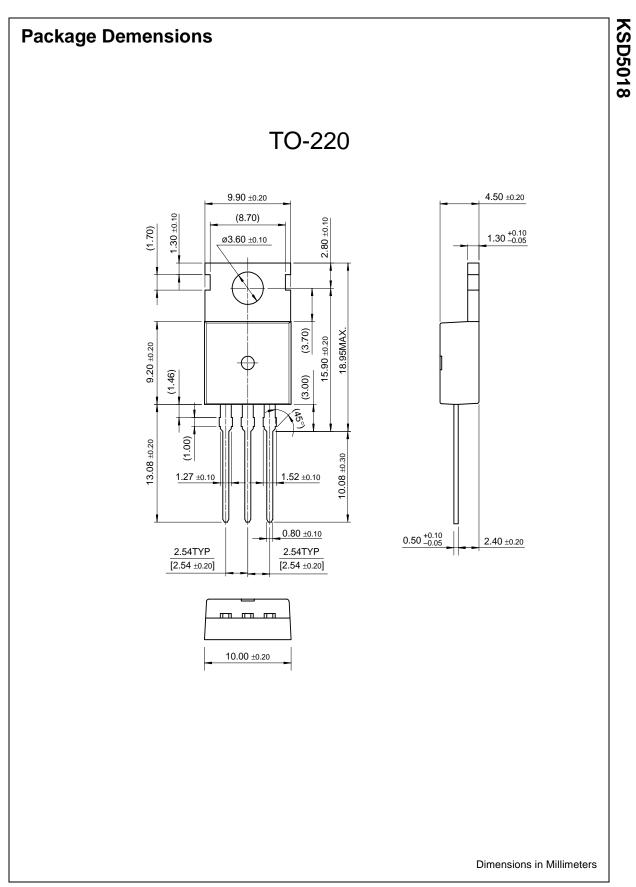
Symbol	Parameter	Test Condition	Min.	Max.	Units
V <sub>CEO</sub> (sus)	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 1.5A, I <sub>B</sub> = 0.05A, L = 25mH	275		V
BV <sub>CER</sub>	Collector-Emitter Breakdown Voltage	$I_{C} = 1 \text{mA}, R_{BE} = 330 \Omega$	600		V
I <sub>CES</sub>	Collector Cut-off Current	V <sub>CE</sub> = 500V		1	mA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = 10V, I <sub>C</sub> = 0		1	mA
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	$I_{\rm C} = 2$ A, $I_{\rm B} = 5$ mA		1.5	V
		$I_{\rm C} = 3A, I_{\rm B} = 20mA$		1.5	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	$I_{\rm C} = 2$ A, $I_{\rm B} = 5$ mA		2	V

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Rev. A, February 2000



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