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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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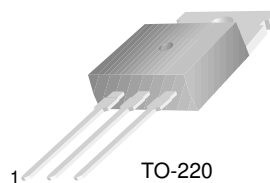
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KSD1943

High Power Transistor



TO-220
1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current	3	A
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 25\text{mA}, I_B = 0$	60		V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 80\text{V}, I_E = 0$		100	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 8\text{V}, I_C = 0$		10	μA
h_{FE}	DC Current Gain	$V_{CE} = 4\text{V}, I_C = 0.5\text{A}$	400	2000	
$V_{BE(\text{sat})}$	Base-Emitter Saturation Voltage	$I_C = 2\text{A}, I_B = 0.05\text{A}$		1.5	V
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C = 2\text{A}, I_B = 0.05\text{A}$		1	V

Typical Characteristics

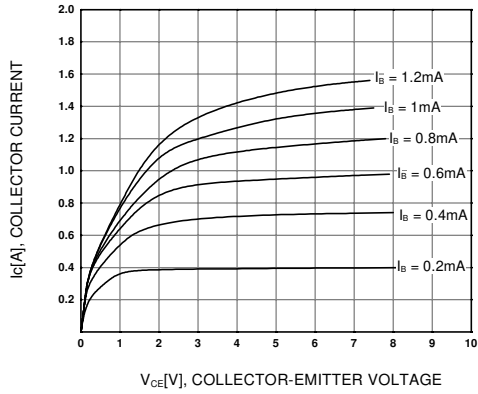


Figure 1. Static Characteristic

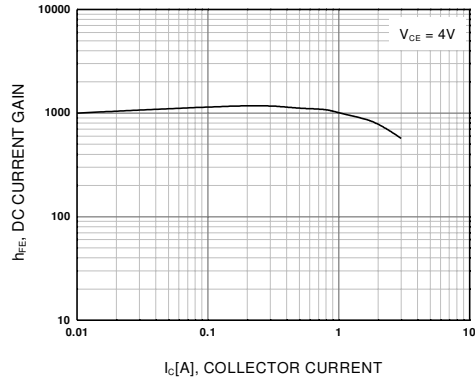


Figure 2. DC current Gain

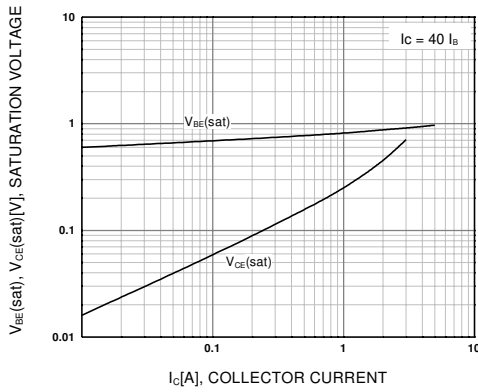


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

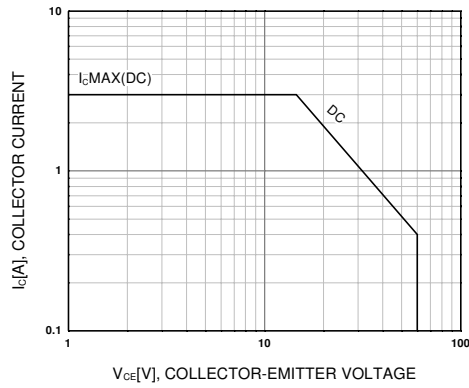


Figure 4. Safe Operating Area

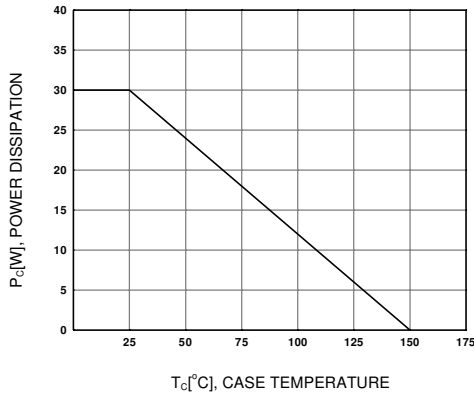
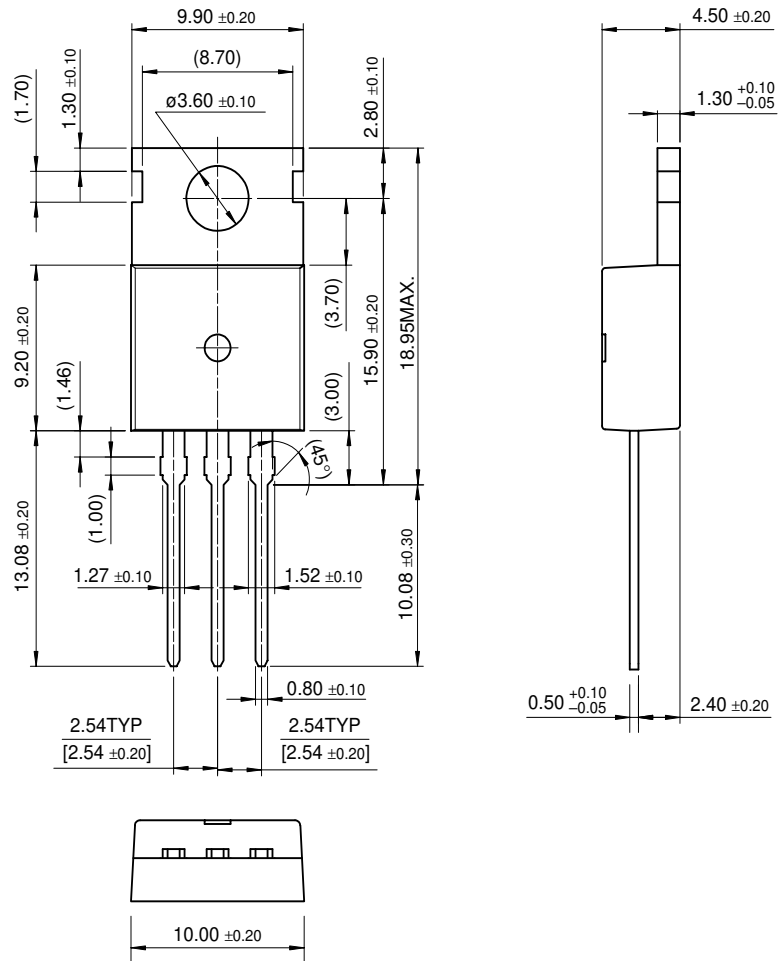


Figure 5. Power Derating

Package Dimensions

KSD1943

TO-220



Dimensions in Millimeters

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