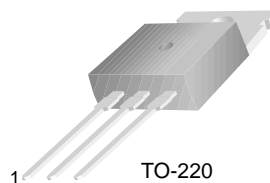


KSC2233

KSC2233

B/W TV Horizontal Deflection Output

- Collector-Base Voltage : $V_{CBO} = 200V$
- Collector Current (DC) : $I_C = 4A$
- Collector Dissipation : $P_C = 40W$



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

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	4	A
P_C	Collector Dissipation ($T_C=25^\circ C$)	40	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ +150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 1mA, I_E = 0$	200			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 20mA, I_B = 0$	60			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 1mA, I_C = 0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 170V, I_E = 0$			10	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = 5V, I_C = 1A$ $V_{CE} = 5V, I_C = 4A$	30 20	40	150	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4A, I_B = 0.4A$			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 4A, I_B = 0.4A$			1.5	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 5V, I_C = 0.5A$		10		MHz

Typical Characteristics

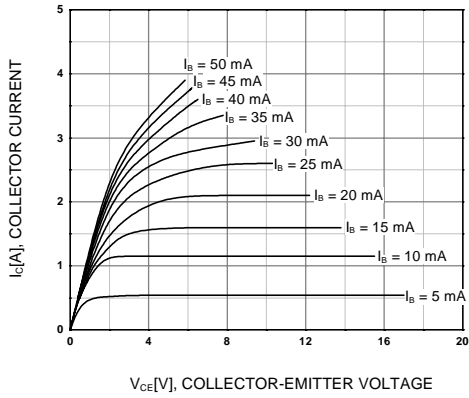


Figure 1. Static Characteristic

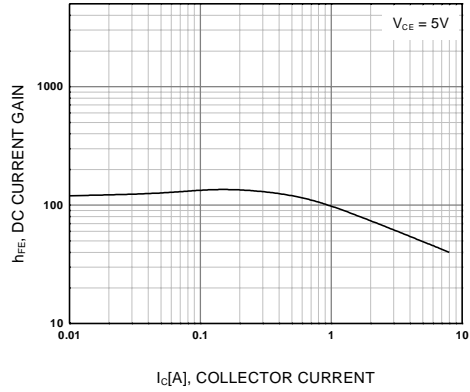


Figure 2. DC current Gain

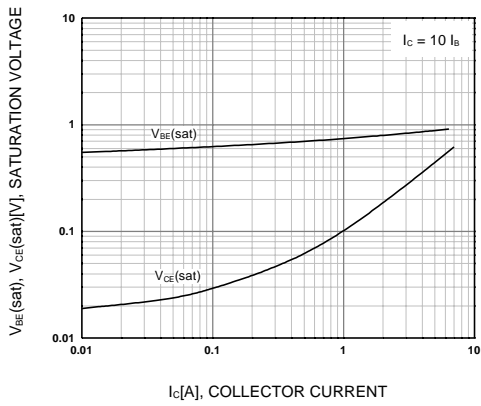


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

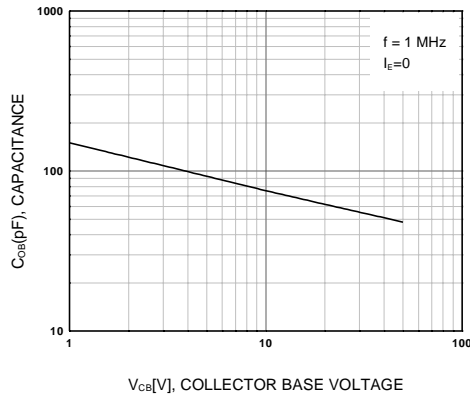


Figure 4. Collector Output Capacitance

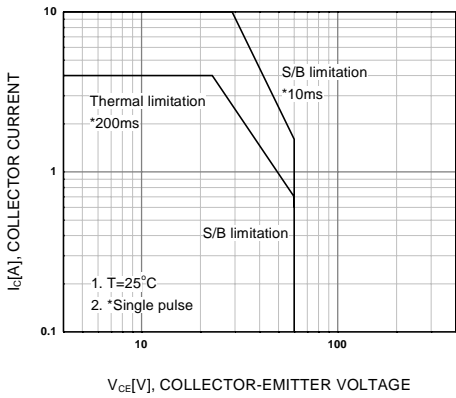


Figure 5. Safe Operating Area

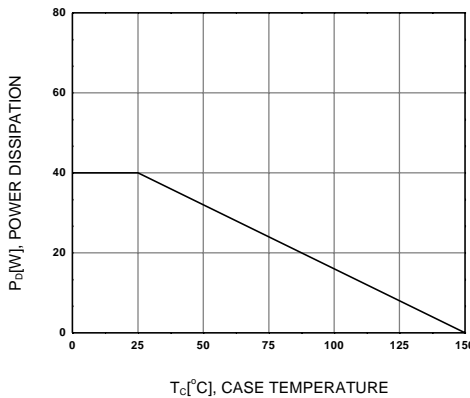
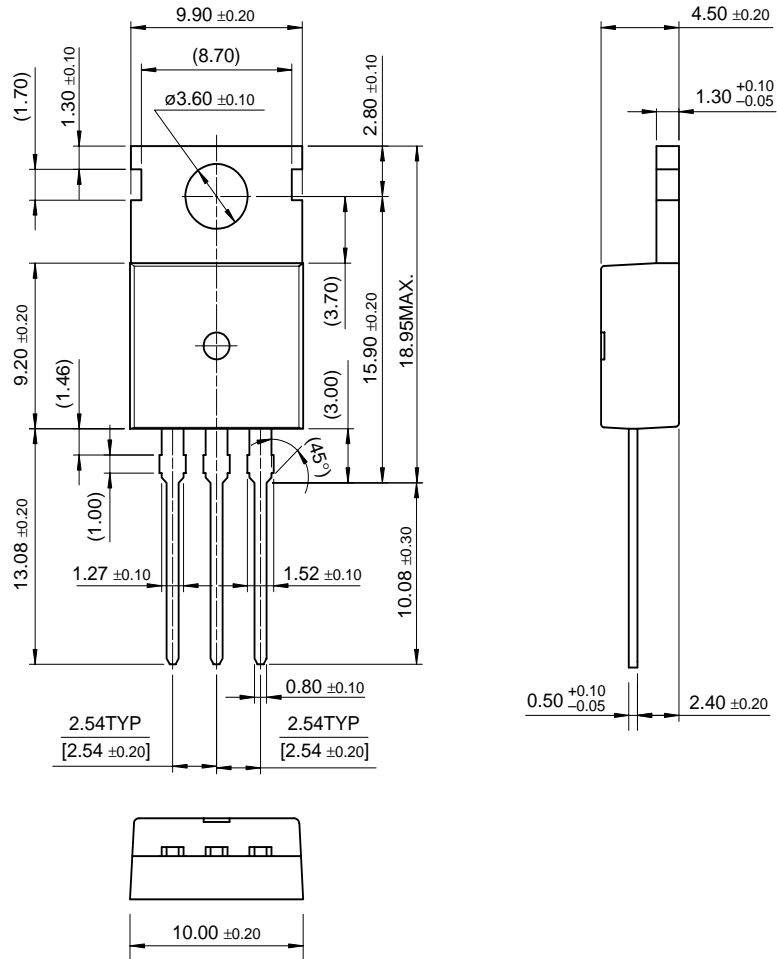


Figure 6. Power Derating

Package Dimensions

KSC2233

TO-220



Dimensions in Millimeters

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