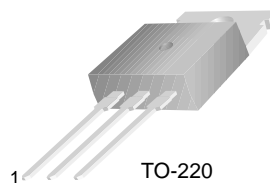


# KSC2233

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	$\mu A$
$h_{FE1}$ $h_{FE2}$	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

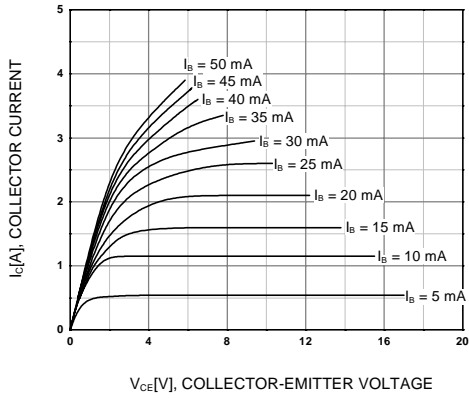


Figure 1. Static Characteristic

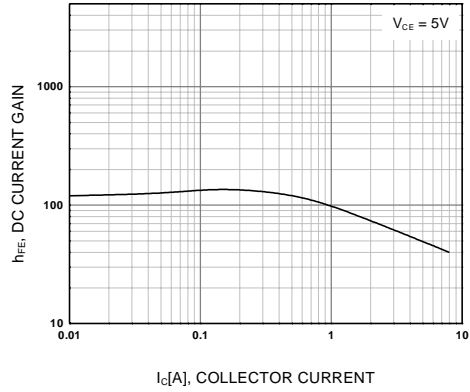


Figure 2. DC current Gain

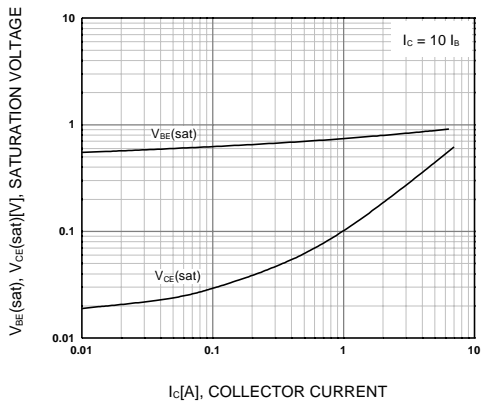


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

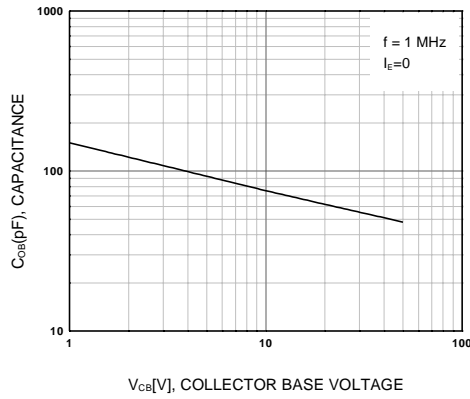


Figure 4. Collector Output Capacitance

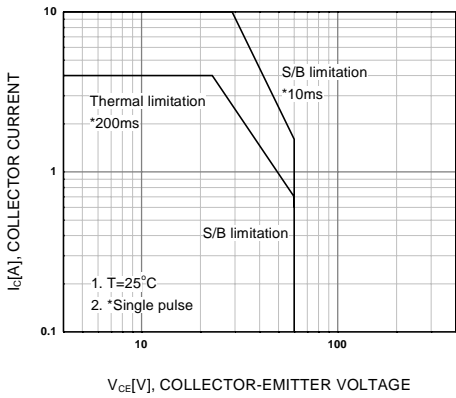


Figure 5. Safe Operating Area

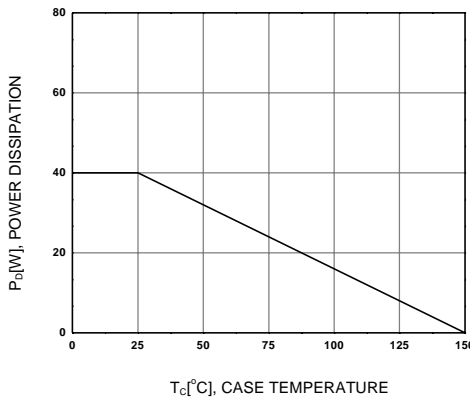


Figure 6. Power Derating



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