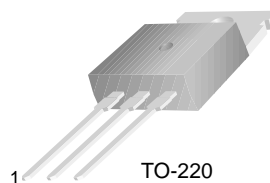


# KSD363

## B/W TV Horizontal Deflection Output

- Collector-Base Voltage :  $V_{CBO}=300V$
- Collector Current :  $I_C=6A$
- Collector Dissipation :  $P_C=40W(T_C=25^\circ C)$



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	300	V
$V_{CEO}$	Collector-Emitter Voltage	120	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current	6	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	$I_C = 1mA, I_E = 0$	300			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 20mA, I_B = 0$	120			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1mA, I_C = 0$	8			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 250V, I_E = 0$			1	mA
$h_{FE}$	DC Current Gain	$V_{CE} = 5V, I_C = 1A$	40		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1A, I_B = 0.1A$			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1A, I_B = 0.1A$			1.5	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = 5V, I_C = 0.5A$		10		MHz

### $h_{FE}$ Classification

Classification	R	O	Y
$h_{FE}$	40 ~ 80	70 ~ 140	120 ~ 240

# Typical Characteristics

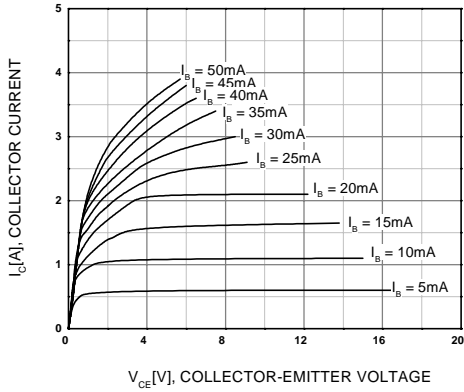


Figure 1. Static Characteristic

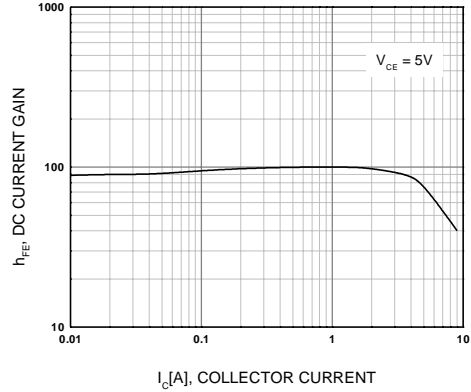


Figure 2. DC current Gain

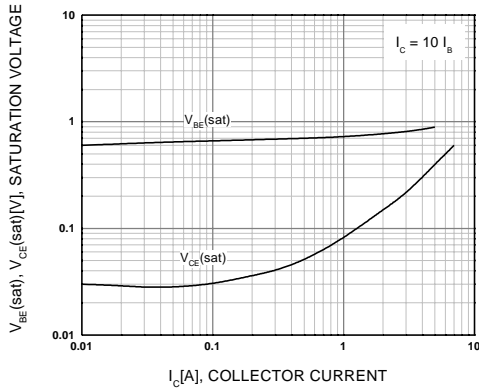


Figure 3. Base-Emitter Saturation Voltage  
Collect-Emitter Saturation Voltage

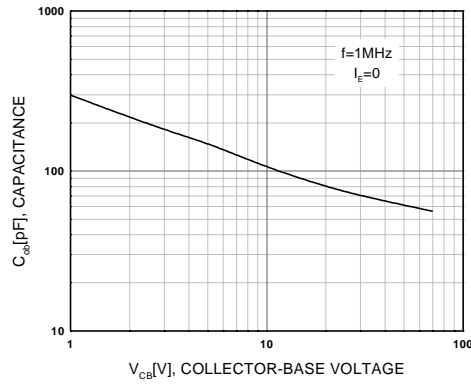


Figure 4. Collector Output Capacitance

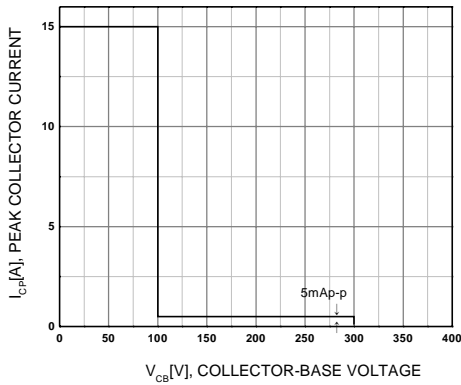


Figure 5. Safe Operating (On Horizontal  
Deflection Output Circuit)

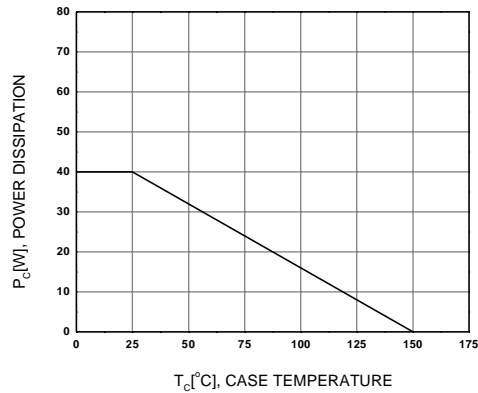


Figure 6. Power Derating

# Package Dimensions

KSD363

## TO-220



Dimensions in Millimeters

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E <sup>2</sup> CMOS™	PowerTrench®	VCX™
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