

KSD363Y Datasheet

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DiGi Electronics Part Number	KSD363Y-DG
Manufacturer	onsemi
Manufacturer Product Number	KSD363Y
Description	TRANS NPN 120V 6A TO220-3
Detailed Description	Bipolar (BJT) Transistor NPN 120 V 6 A 10MHz 40 W Through Hole TO-220-3



Tel: +00 852-30501935

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Purchase and inquiry

Manufacturer Product Number:

KSD363Y

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

120 V

Current - Collector Cutoff (Max):

1mA (ICBO)

Power - Max:

40 W

Operating Temperature:

150°C (TJ)

Package / Case:

TO-220-3

Base Product Number:

KSD363

Manufacturer:

onsemi

Product Status:

Obsolete

Current - Collector (Ic) (Max):

6 A

Vce Saturation (Max) @ Ib, Ic:

1V @ 100mA, 1A

DC Current Gain (hFE) (Min) @ Ic, Vce:

120 @ 1A, 5V

Frequency - Transition:

10MHz

Mounting Type:

Through Hole

Supplier Device Package:

TO-220-3

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

REACH Status:

REACH Unaffected

HTSUS:

8541.29.0095



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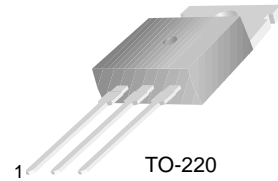
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KSD363

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

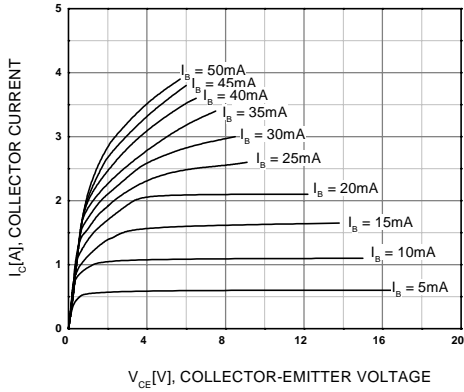


Figure 1. Static Characteristic

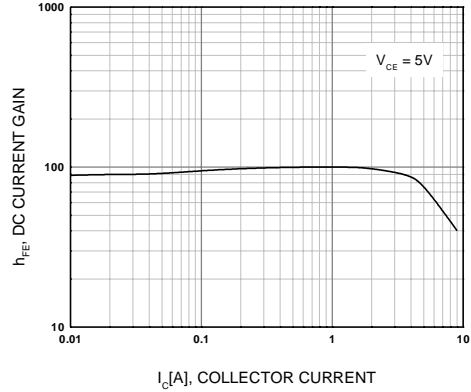


Figure 2. DC current Gain

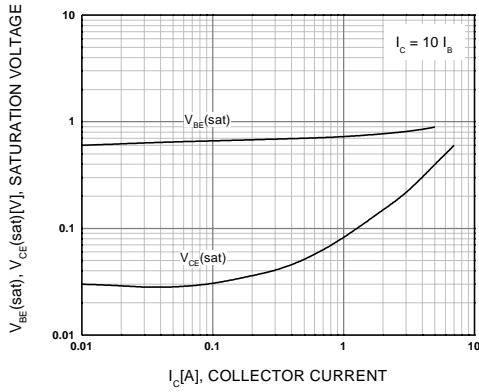


Figure 3. Base-Emitter Saturation Voltage
Collect-Emitter Saturation Voltage

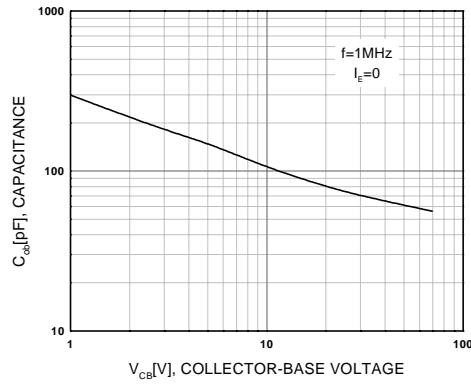


Figure 4. Collector Output Capacitance

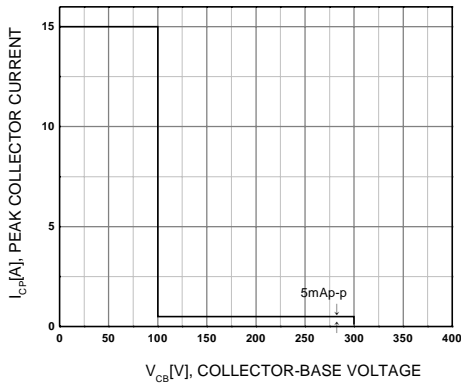


Figure 5. Safe Operating (On Horizontal
Deflection Output Circuit)

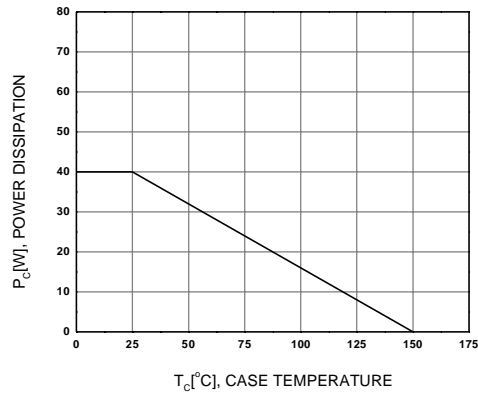
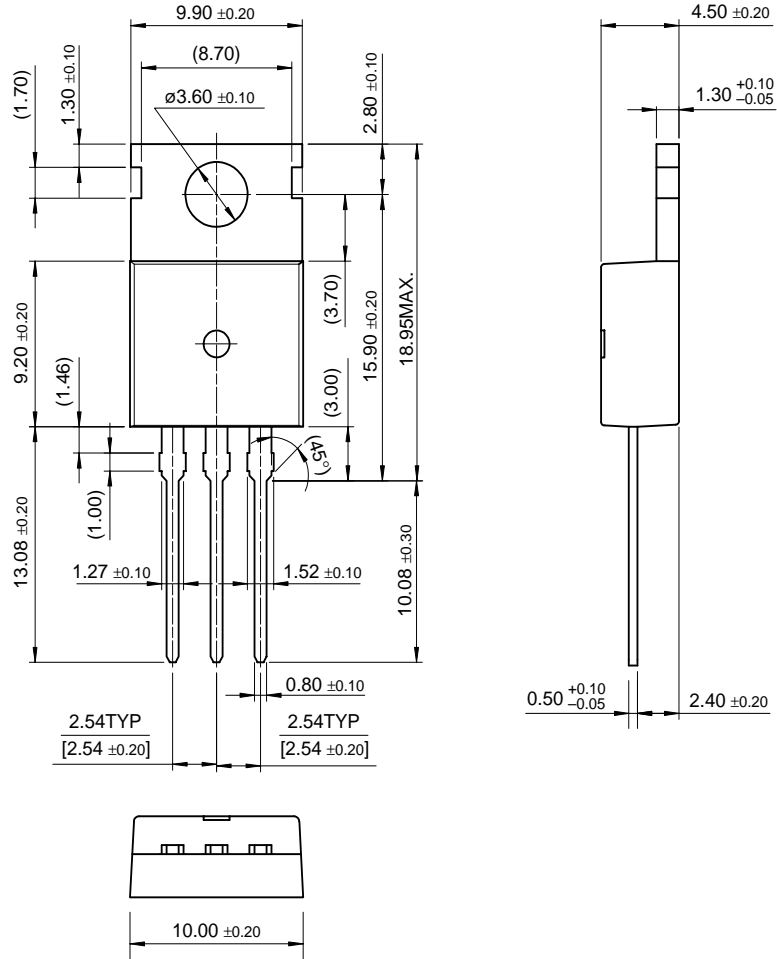


Figure 6. Power Derating

Package Dimensions

TO-220



Dimensions in Millimeters

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