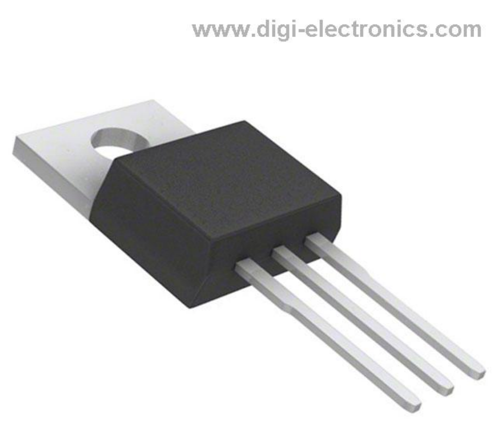
KSE3055TTU Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	KSE3055TTU-DG
Manufacturer	onsemi
Manufacturer Product Number	KSE3055TTU
Description	TRANS NPN 60V 10A TO220-3
Detailed Description	Bipolar (BJT) Transistor NPN 60 V 10 A 2MHz 600 mW Through Hole TO-220-3

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:	KSE3055TTU	Manufacturer:	onsemi
Series:	-	Product Status:	Obsolete
Transistor Type:	NPN	Current - Collector (Ic) (Max):	10 A
Voltage - Collector Emitter Breakdown (Max):	60 V	Vce Saturation (Max) @ Ib, Ic:	8V @ 3.3A, 10A
Current - Collector Cutoff (Max):	700µA	DC Current Gain (hFE) (Min) @ Ic, Vce:	20 @ 4A, 4V
Power - Max:	600 mW	Frequency - Transition:	2MHz
Operating Temperature:	150°C (TJ)	Mounting Type:	Through Hole
Package / Case:	TO-220-3	Supplier Device Package:	TO-220-3
Base Product Number:	KSE30		

Environmental & Export classification

Moisture Sensitivity Level (MSL):	1 (Unlimited)	REACH Status:	REACH Unaffected
ECCN:	EAR99	HTSUS:	8541.21.0095

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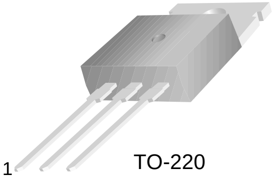
KSE3055T

General Purpose and Switching Applications

- DC Current Gain Specified to I_C =10A
- High Current Gain-Bandwidth Product : f_T = 2MHz (Min.)



1.Base 2.Collector 3.Emitter

NPN Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector -Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	10	A
I_B	Base Current	6	A
P_C	Collector Dissipation (T_C=25°C)	75	W
	Collector Dissipation (T_a=25°C)	0.6	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 200mA, I_B = 0	60		V
I_{CEO}	Collector Cut-off Current	V_{CE} = 30V, I_B = 0		700	µA
I_{CEX1} I_{CEX2}	Collector Cut-off Current	V_{CE} = 70V, V_{BE}(off) = -1.5V V_{CE} = 70V, V_{BE}(off) = -1.5V @ T_C = 150°C		1 5	mA mA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C = 0		5	mA
h_{FE}	*DC Current Gain	V_{CE} = 4V, I_C = 4A V_{CE} = 4V, I_C = 10A	20 5	100	
V_{CE}(sat)	*Collector-Emitter Saturation Voltage	I_C = 4A, I_B = 0.4A I_C = 10A, I_B = 3.3A		1.1 8	V V
V_{BE} (on)	*Base-Emitter On Voltage	V_{CE} = 4V, I_C = 4A		1.8	V
f_T	Current Gain Bandwidth Product	V_{CE} = 10V, I_C = 500mA	2		MHz

* Pulse test: PW≤300µs, duty cycle≤2% Pulse

Typical Characteristics

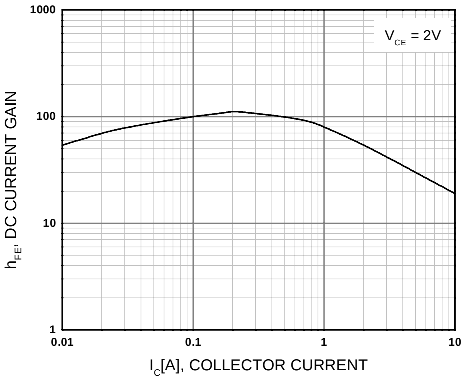


Figure 1. DC current Gain

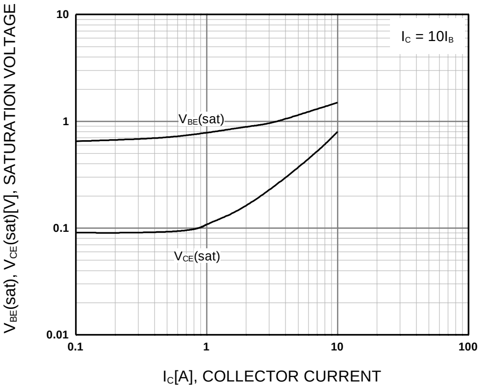


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

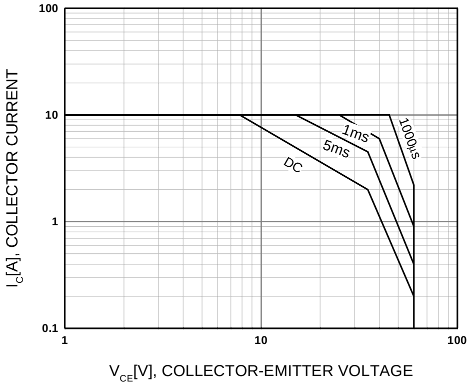


Figure 3. Safe Operating Area

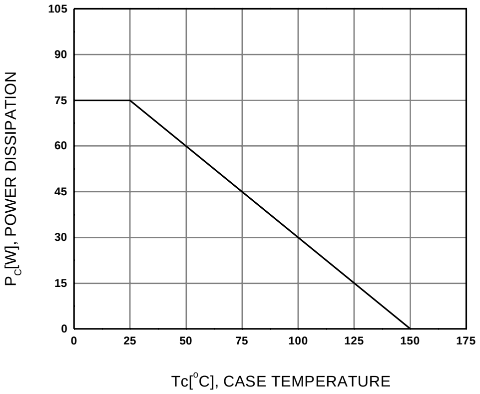
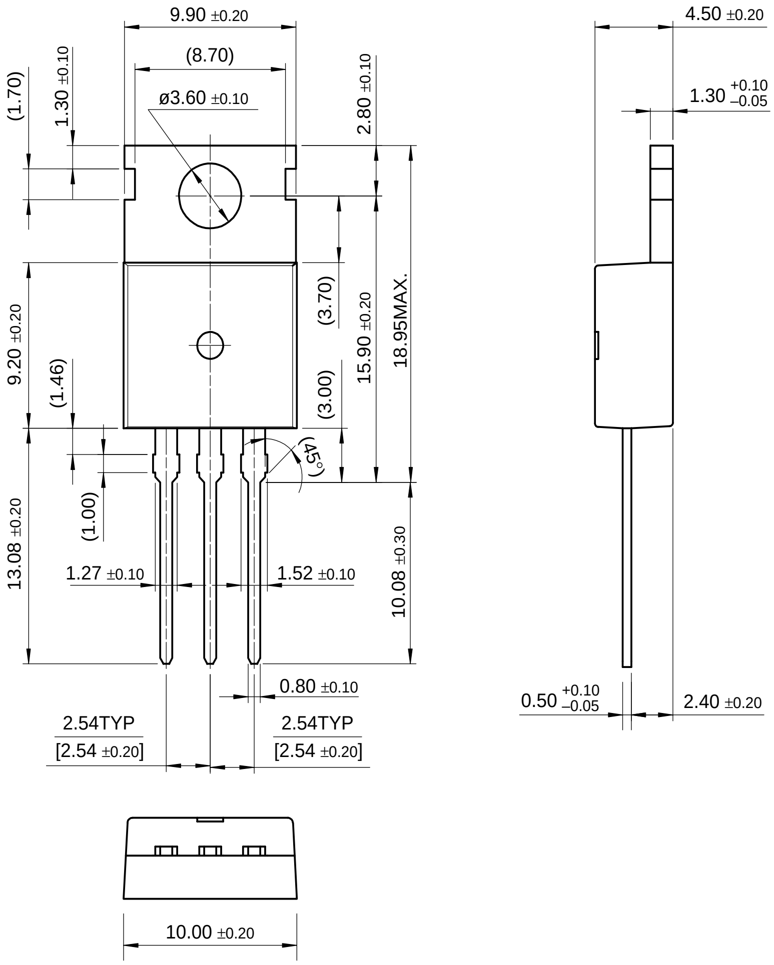


Figure 4. Power Derating

Package Demensions

TO-220



Dimensions in Millimeters

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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a limited company.

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Hong Kong Special Administrative Region

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MEMBERSHIP

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