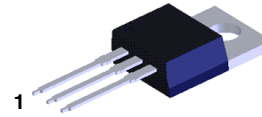


NPN Epitaxial Silicon Transistor

KSC2073



TO-220-3LD
CASE 340AT

Features

- TV Vertical Deflection Output
- Complement to KSA940
- Collector–Base Voltage : $V_{CBO} = 150\text{ V}$
- These Devices are Pb–Free and Halide Free

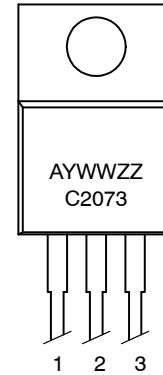
ABSOLUTE MAXIMUM RATINGS

($T_A = 25^\circ\text{C}$ unless otherwise noted.)

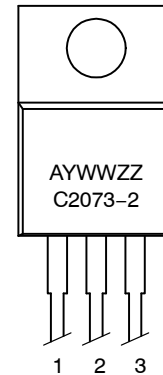
Symbol	Parameter	Value	Unit
V_{CBO}	Collector–Base Voltage	150	V
V_{CEO}	Collector–Emitter Voltage	150	V
V_{EBO}	Emitter–Base Voltage	5	V
I_C	Collector Current	1.5	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	$-55 \sim 150$	$^\circ\text{C}$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

MARKING DIAGRAMS



1: Base
2: Collector
3: Emitter



1: Base
2: Collector
3: Emitter

A = Assembly Plant Code
YWW = 3–Digit Date Code
(Year and Week)
ZZ = 2–Digit Lot Code
C2073, C2073–2 = Specific Device Code

ORDERING INFORMATION

See detailed ordering, marking and shipping information on page 2 of this data sheet.

NOTE: Some of the devices on this data sheet have been **DISCONTINUED**. Please refer to the table on page 2.

KSC2073

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 500\ \mu\text{A}, I_E = 0$	150	-	-	V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10\ \text{mA}, I_B = 0$	150	-	-	V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 500\ \mu\text{A}, I_C = 0$	5	-	-	V
I_{CBO}	Collector Cut-Off Current	$V_{CB} = 120\ \text{V}, I_E = 0$	-	-	10	μA
h_{FE}	DC Current Gain	$V_{CE} = 10\ \text{V}, I_C = 0.5\ \text{A}$	40	75	140	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 500\ \text{mA}, I_B = 50\ \text{mA}$	-	-	1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 10\ \text{V}, I_C = 0.5\ \text{A}$	-	4	-	MHz
C_{ob}	Output Capacitance	$V_{CB} = 10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$	-	50	-	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

h_{FE} CLASSIFICATION

Classification	H1	H2
h_{FE}	40 ~ 80	60 ~ 125

ORDERING INFORMATION

Device	Package	Marking	Shipping
KSC2073TU	TO-220-3LD (Pb-Free)	C2073	1000 Units / Tube

DISCONTINUED (Note 1)

KSC2073H2TU	TO-220-3LD (Pb-Free)	C2073-2	1000 Units / Tube
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- DISCONTINUED:** This device is not recommended for new design. Please contact your **onsemi** representative for information. The most current information on this device may be available on www.onsemi.com.

TYPICAL PERFORMANCE CHARACTERISTICS

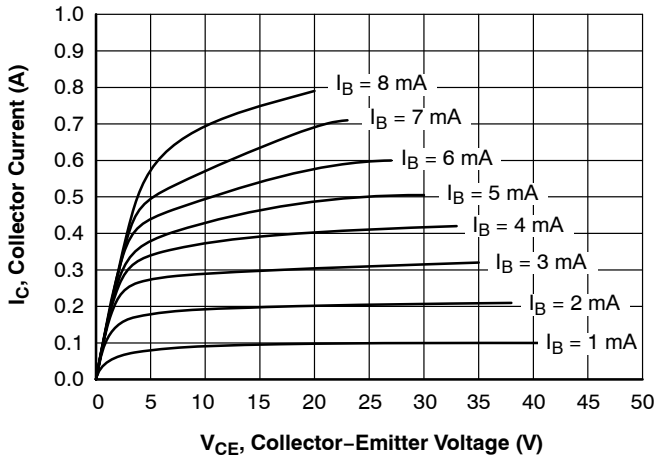


Figure 1. Static Characteristic

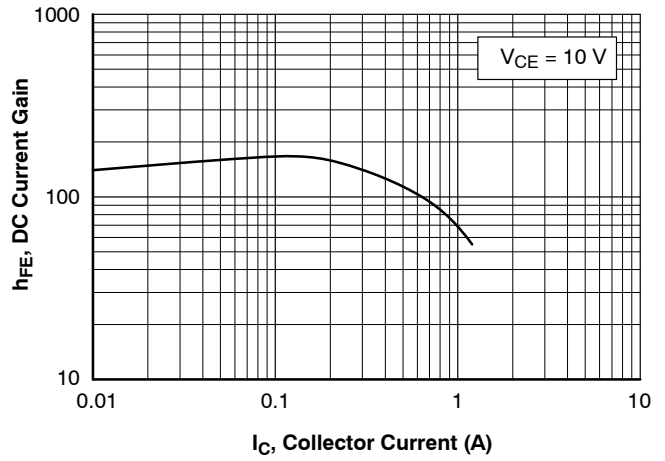


Figure 2. DC Current Gain

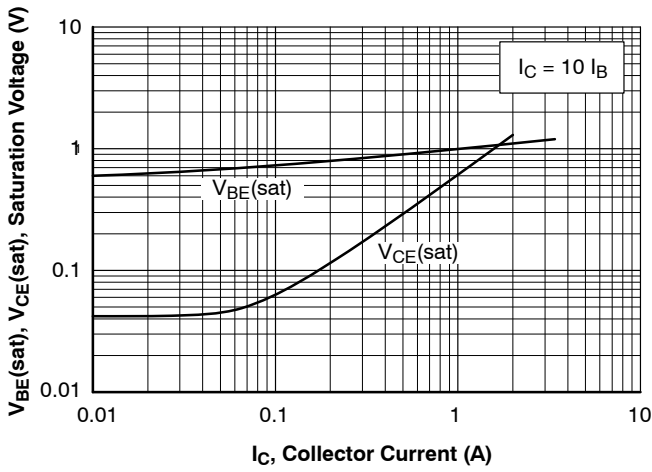


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

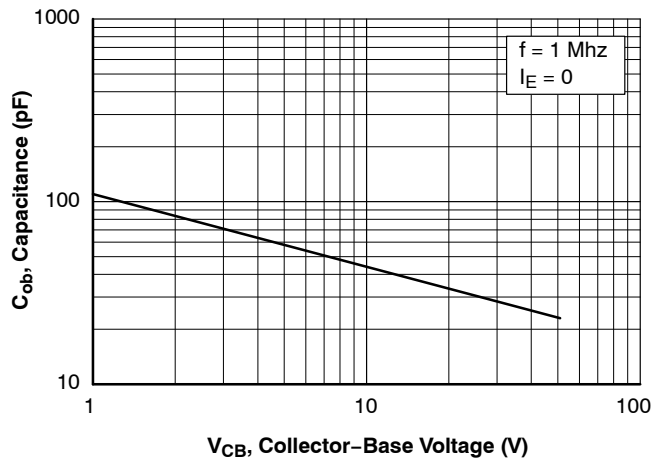


Figure 4. Collector-Emitter On Voltage

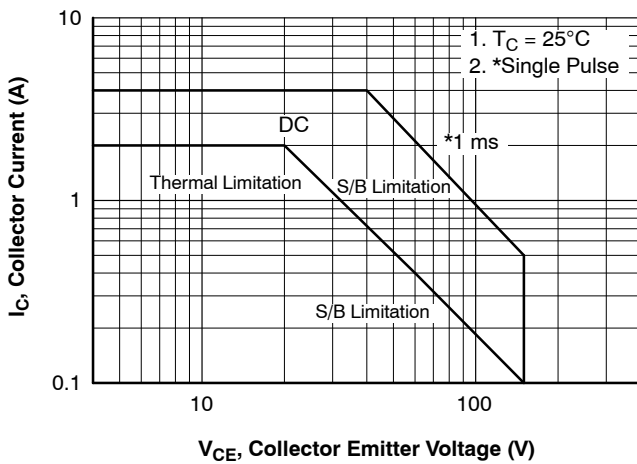


Figure 5. Safe Operating Area

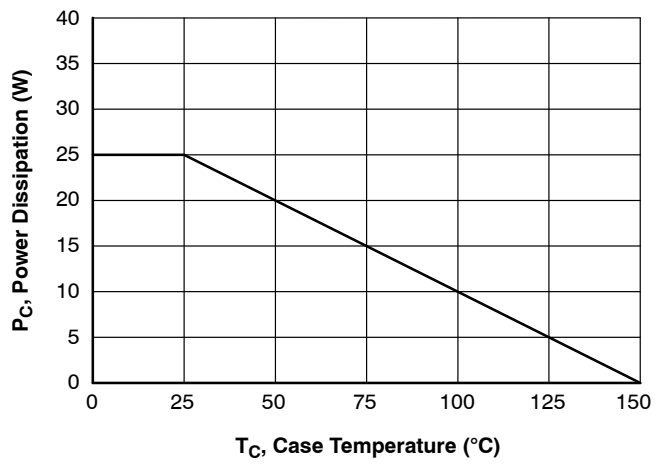
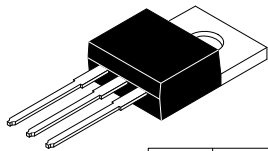


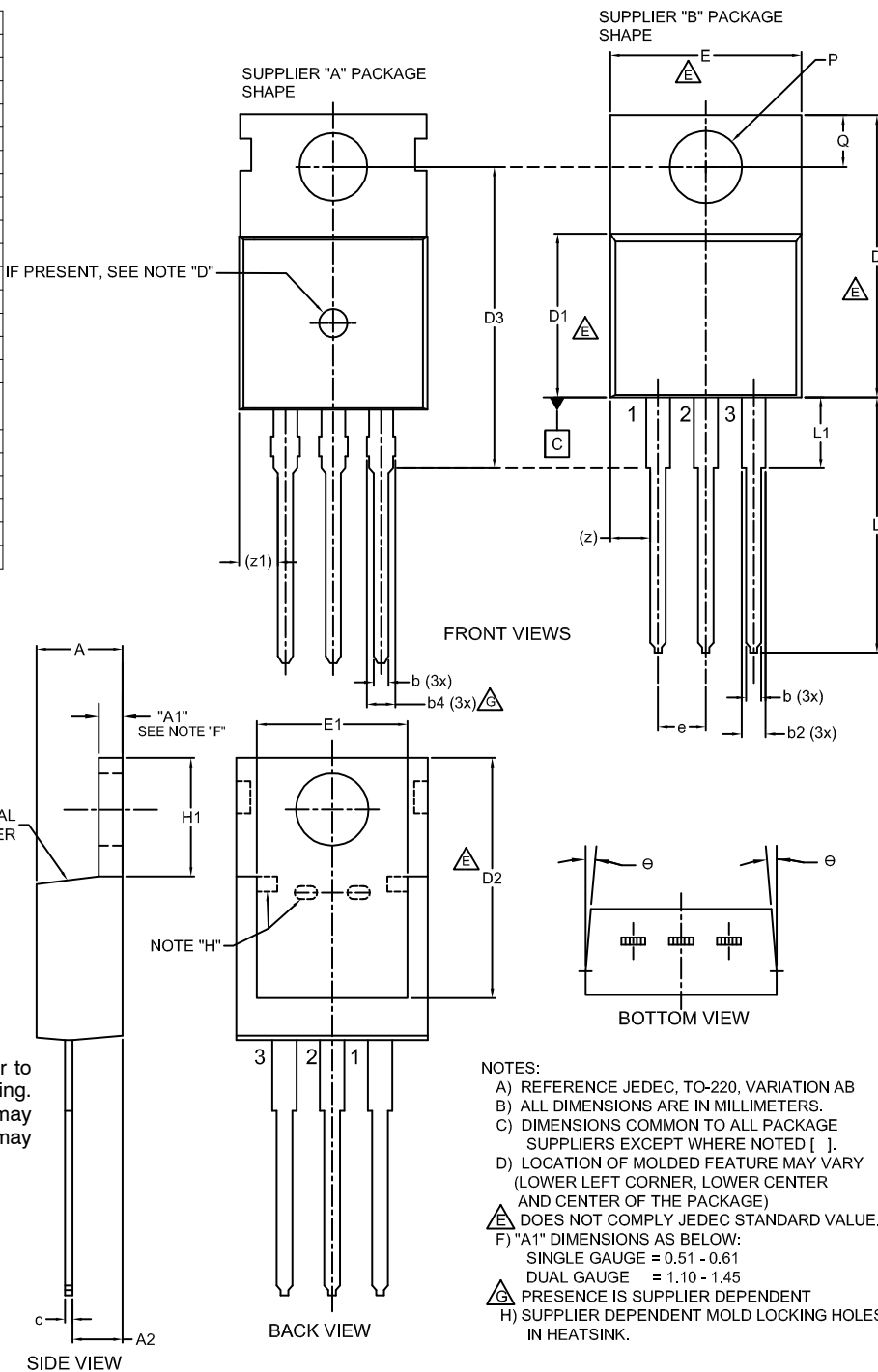
Figure 6. Power Derating



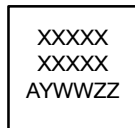
TO-220-3LD
CASE 340AT
ISSUE B

DATE 08 AUG 2022

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	4.00	--	4.70
A1	SEE NOTE "F"		
A2	2.10	--	2.85
b	0.55	--	1.00
b2	1.10	--	1.62
b4	1.42	--	1.62
c	0.36	--	0.60
D	13.90	--	16.30
D1	8.13	--	9.40
D2	11.50	--	14.30
D3	15.42	--	16.51
E	9.65	--	10.67
E1	7.59	--	8.65
e	2.40	--	2.67
H1	6.06	--	6.69
L	12.70	--	14.04
L1	2.70	--	4.10
P	3.50	--	4.00
Q	2.50	--	3.40
z	2.13 REF		
z1	2.06 REF		
θ	3°	--	5°



GENERIC MARKING DIAGRAM*



XXXX = Specific Device Code
A = Assembly Location
Y = Year
WW = Work Week
ZZ = Assembly Lot Code

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

NOTES:

- A) REFERENCE JEDEC, TO-220, VARIATION AB
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DIMENSIONS COMMON TO ALL PACKAGE SUPPLIERS EXCEPT WHERE NOTED [].
- D) LOCATION OF MOLDED FEATURE MAY VARY (LOWER LEFT CORNER, LOWER CENTER AND CENTER OF THE PACKAGE)
- ⚠ DOES NOT COMPLY JEDEC STANDARD VALUE.
- F) "A1" DIMENSIONS AS BELOW:
SINGLE GAUGE = 0.51 - 0.61
DUAL GAUGE = 1.10 - 1.45
- ⚠ PRESENCE IS SUPPLIER DEPENDENT
- H) SUPPLIER DEPENDENT MOLD LOCKING HOLES IN HEATSINK.

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DESCRIPTION:	TO-220-3LD	PAGE 1 OF 1

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