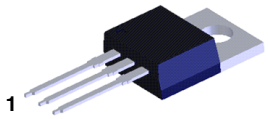
NPN Epitaxial Silicon Transistor

KSC2073



TO−220−3LD
CASE 340AT

Features

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

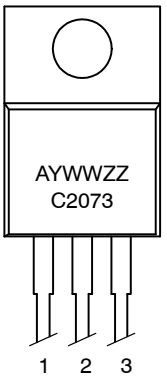
ABSOLUTE MAXIMUM RATINGS

(T_A = 25°C unless otherwise noted.)

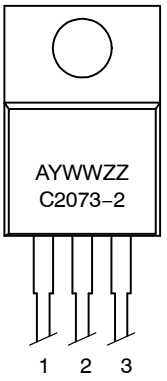
Symbol	Parameter	Value	Unit
V_{CBO}	Collector−Base Voltage	150	V
V_{CEO}	Collector−Emitter Voltage	150	V
V_{EBO}	Emitter−Base Voltage	5	V
I_C	Collector Current	1.5	A
P_C	Collector Dissipation (T_C=25°C)	25	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	−55 ~ 150	°C

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.

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted.)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV_{CBO}	Collector−Base Breakdown Voltage	I_C = 500 μA, I_E = 0	150	–	–	V
BV_{CEO}	Collector−Emitter Breakdown Voltage	I_C = 10 mA, I_B = 0	150	–	–	V
BV_{EBO}	Emitter−Base Breakdown Voltage	I_E = 500 μA, I_C = 0	5	–	–	V
I_{CBO}	Collector Cut−Off Current	V_{CB} = 120 V, I_E = 0	–	–	10	μA
h_{FE}	DC Current Gain	V_{CE} = 10 V, I_C = 0.5 A	40	75	140	
V_{CE}(sat)	Collector−Emitter Saturation Voltage	I_C = 500 mA, I_B = 50 mA	–	–	1	V
f_T	Current Gain Bandwidth Product	V_{CE} = 10 V, I_C = 0.5 A	–	4	–	MHz
C_{ob}	Output Capacitance	V_{CB} = 10 V, I_E = 0, f = 1 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
KSC2073H2TU		C2073−2	

TYPICAL PERFORMANCE CHARACTERISTICS

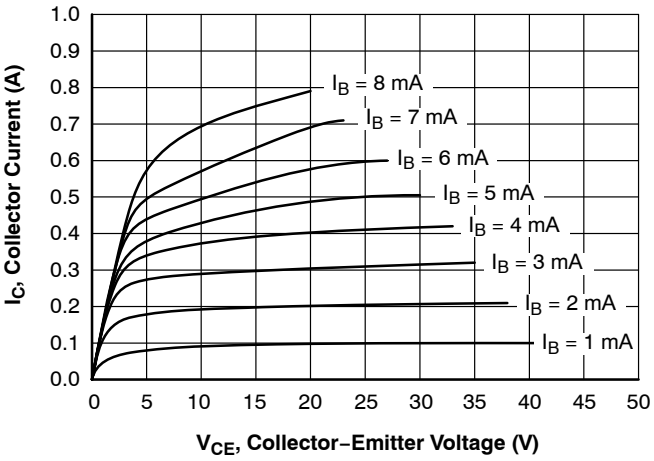


Figure 1. Static Characteristic

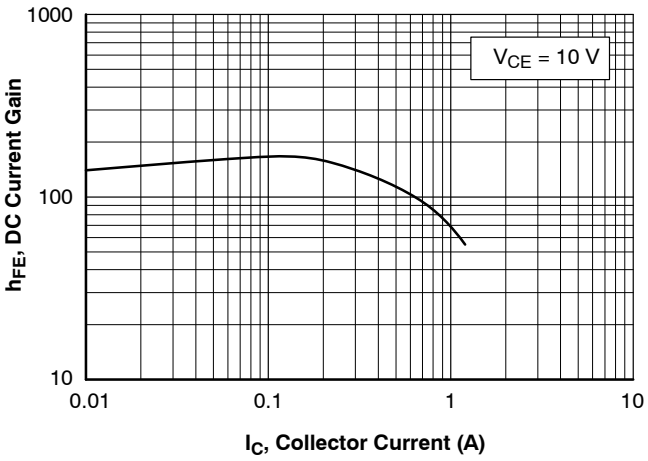


Figure 2. DC Current Gain

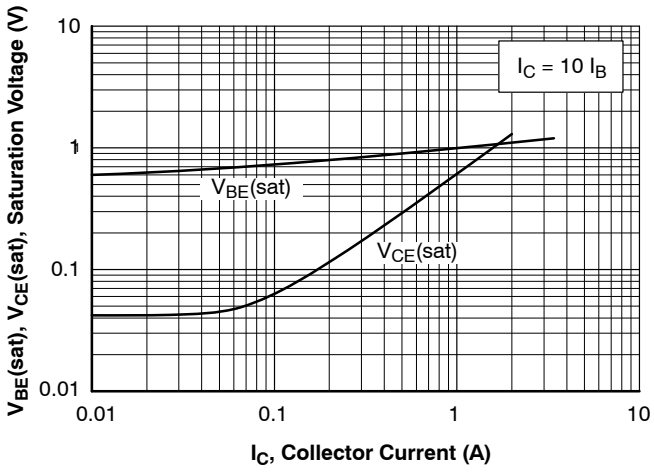


Figure 3. Base−Emitter Saturation Voltage Collector−Emitter Saturation Voltage

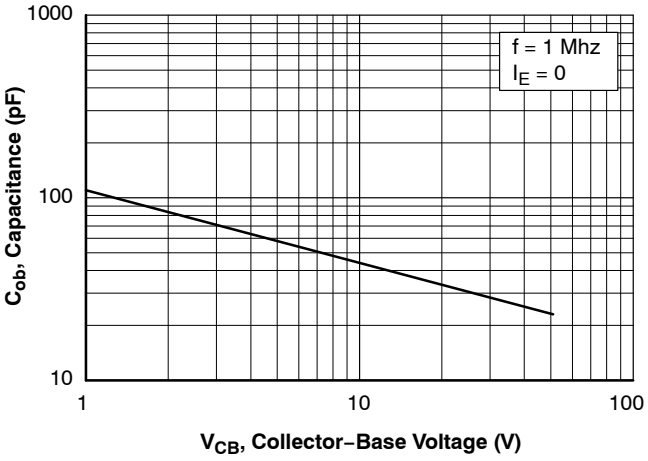


Figure 4. Collector−Emitter On Voltage

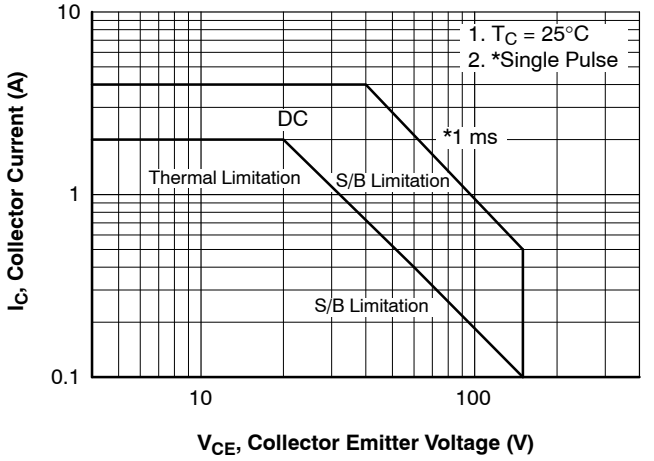


Figure 5. Safe Operating Area

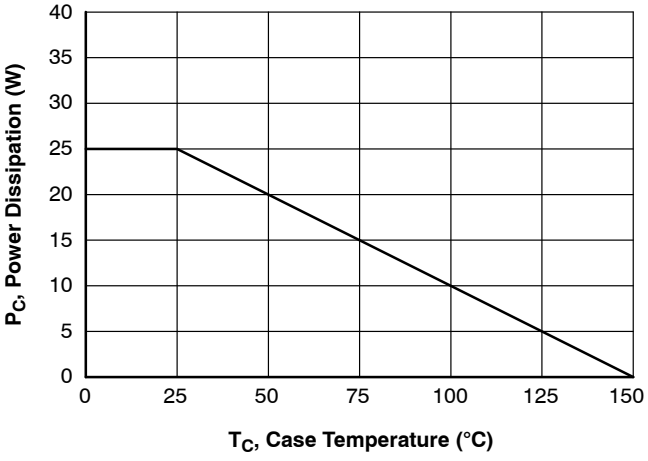


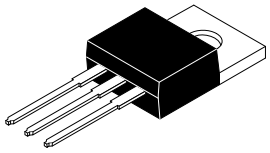
Figure 6. Power Derating

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

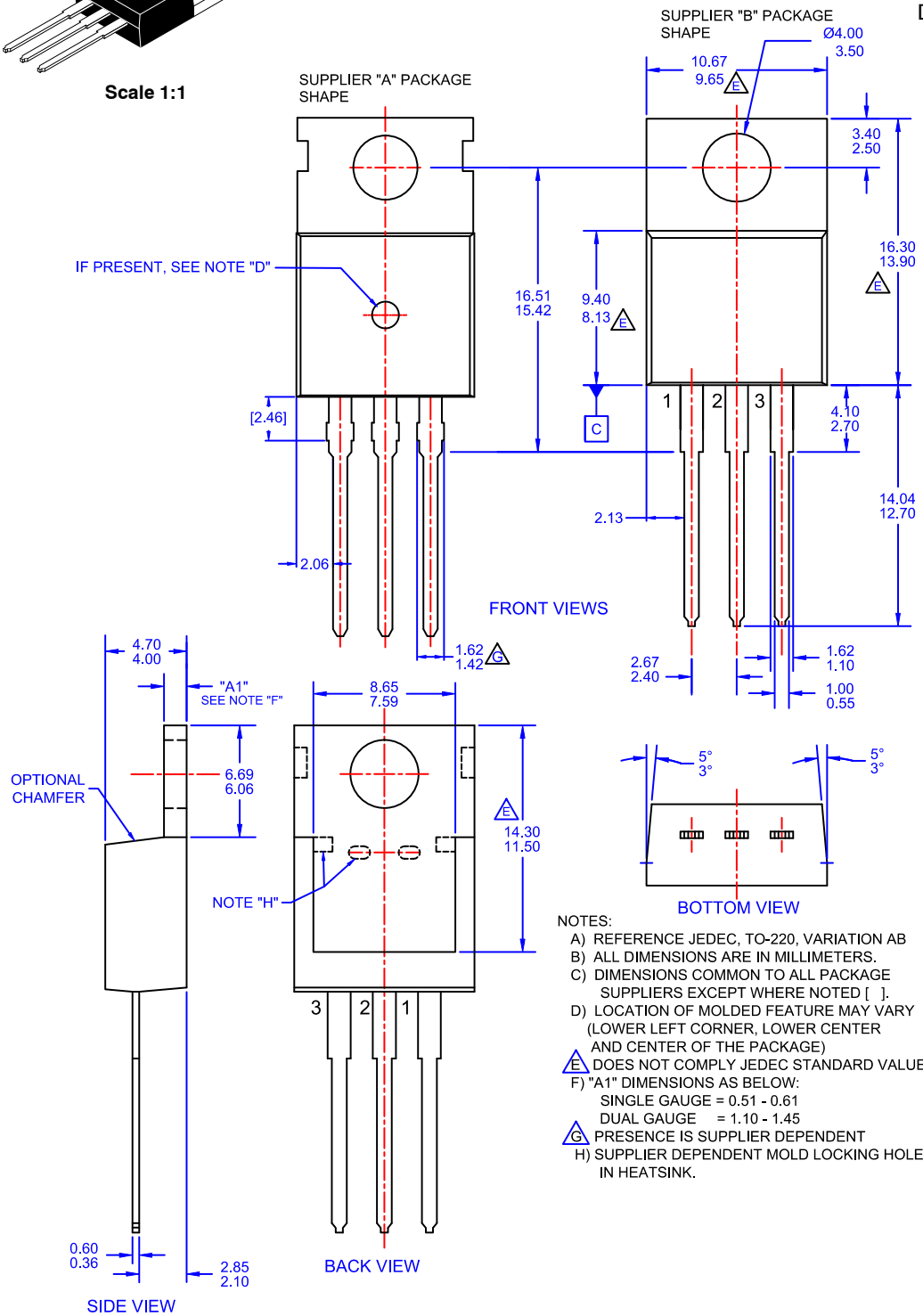
ON Semiconductor®

TO−220−3LD
CASE 340AT
ISSUE A

DATE 03 OCT 2017



Scale 1:1



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)
E DOES NOT COMPLY JEDEC STANDARD VALUE.
F) "A1" DIMENSIONS AS BELOW:
SINGLE GAUGE = 0.51 - 0.61
DUAL GAUGE = 1.10 - 1.45
G 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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