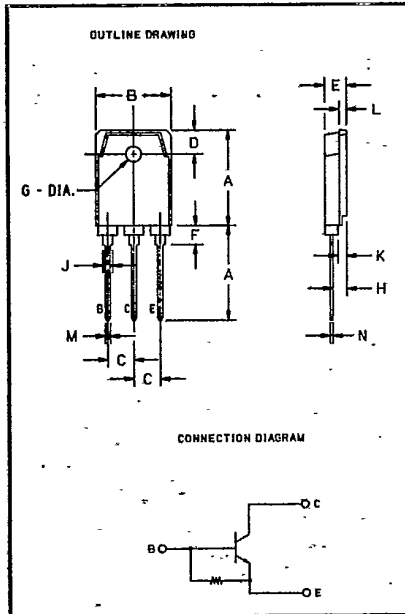


Powerex, Inc., Hillis Street, Youngwood, Pennsylvania 15697 (412) 925-7272

Base Drive Transistor Module 5 Amperes/1000 Volts



**1000 Volt KS031KA0
Outline Drawing**

Dimension	Inches	Millimeters
A	.787	20
B	.614	15.6
C	.214 ± .008	5.45 ± 0.2
D	.197	5
E	.177	4.5
F	.157	4
G	.126 ± .008 Dia.	3.2 ± 0.2 Dia.
H	.110	2.8
J	.079	2
K	.071	1.8
L	.059	1.5
M	.039	1
N	.024	0.6

Description

Powerex Base Drive Transistor Modules are designed for use in switching applications or Base drive amplifiers. The modules are isolated, consisting of one Bipolar Transistor with a base emitter resistor.

Features:

- ☐ Isolated Mounting
- ☐ Planar Chip
- ☐ High Gain (h_{FE})
- ☐ Base Emitter Resistor

Applications:

- ☐ Inverters
- ☐ DC Motor Control
- ☐ Switching Power Supplies
- ☐ AC Motor Control
- ☐ Base Drive

Ordering Information

Example: Select the complete eight digit module part number you desire from the table - i.e. KS031KA0 is a 1000 Volt, 5 Ampere Base Drive Transistor Module.

Type	V _{CE(SUS)} Volts (1000)	Current Rating Amperes (5)
KS03	1K	A0

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KS031KA0
Base Drive Transistor Module
 5 Amperes / 1000 Volts

Maximum Ratings $T_J = 25^\circ\text{C}$ unless otherwise specified

	Symbol	KS031KA0	Units
Junction Temperature	T_J	-40 to 150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to 125	$^\circ\text{C}$
Collector-Emitter Sustaining Voltage $V_{BE} = -2\text{V}$	$V_{CEV(SUS)}$	1000	Volts
Collector-Base Voltage	V_{CBO}	1000	Volts
Emitter-Base Voltage	V_{EBO}	7	Volts
Collector-Emitter Voltage	V_{CEV}	1000	Volts
Continuous Collector Current	I_C	5	Amperes
Continuous Base Current	I_B	3	Amperes
Power Dissipation	P_T	100	Watts
Max. Mounting Torque M3 Mounting Screw	—	3	in.-lb.
Module Weight	—	5	Grams
V isolation	V_{RMS}	2500	Volts

Electrical and Mechanical Characteristics $T_J = 25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	KS031KA0 Typ.	Max.	Units
Collector Cutoff Current	I_{CEV}	$V_{CE} = 1000, V_{BE} = -2\text{V}$	—	—	1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 7\text{V}$	—	—	50	mA
DC Current Gain	h_{FE}	$I_C = 2\text{A}, V_{CE} = 5.0\text{V}$	10	—	—	—
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 2\text{A}, I_B = 0.4\text{A}$	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = 2\text{A}, I_B = 0.4\text{A}$	—	—	1.5	V
Resistive	Turn On	$V_{CC} = 600\text{V}$	—	—	1.0	μs
Load	Storage Time	$I_C = 3\text{A}$	—	—	4.0	μs
Switch Times	Fall Time	$I_{B1} = 0.6, -I_{B2} = 1.2\text{A}$	—	—	0.8	μs
Thermal Resistance, Case to Sink Lubricated	$R_{\theta CS}$				.5	$^\circ\text{C/W}$
Thermal Resistance, Junction to Case	$R_{\theta JC}$		—	—	1.25	$^\circ\text{C/W}$

This specification is tentative;
 therefore, performance curves are
 not included. Please contact the
 Powerex sales representative
 nearest you for further information.