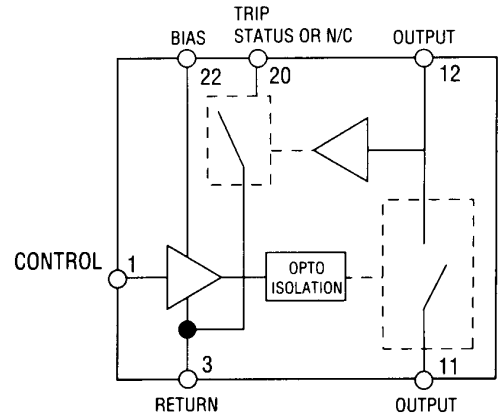


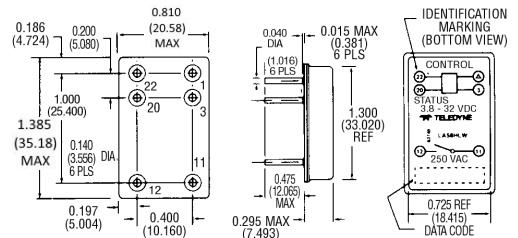
OUTPUT (LOAD) SPECIFICATIONS

	Min	Max	Units
Off-State Leakage Current (250 Vac, 400 Hz)		10	mA
Turn-On Time		1/2	Cycle
Turn-Off Time		1	Cycle
Transient Voltage (5 sec, 25°C)		±500	V pk
Zero Voltage Turn-On Point		±15	V pk
dv/dt	100		V/μs
Surge Current	MIL-PRF-28750		
Load Power Factor	0.2		
Insulation Resistance @ 500 Vdc	10 ⁹		Ohm
Input to Output Capacitance	15		pF
Dielectric Withstanding Voltage (60Hz)	1250		Vrms
Junction Temperature at Rated Current (T _J Max)	125		°C
Thermal Resistance Junction to Ambient (θ _{JA})	30		°C/W
Thermal Resistance Junction to Case (θ _{JC})	5		°C/W

BLOCK DIAGRAM



MECHANICAL SPECIFICATIONS



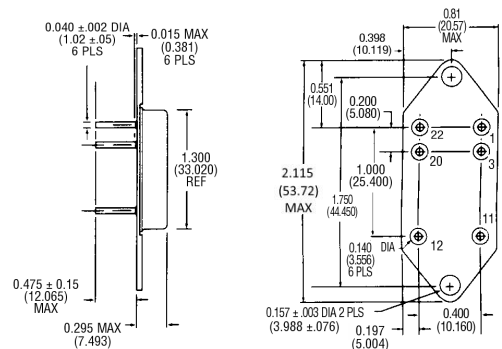
KA SERIES

STATUS OUTPUT TRUTH TABLE

Status	Control	Output
Output State	Input	(Load) State
Off (High)	Low	On
On (Low)	Low	Tripped (Off)
Off (High)	High	Off
On (Low)	High	Non-applicable condition

STATUS OUTPUT SPECIFICATIONS

	Min	Max	Units
Status Supply Voltage		32	Vdc
Status "OFF" Leakage Current @ 32 Vdc		10	μAdc
Status Sink Current (V _{so} ≤ 0.4 Vdc)		10	mAdc
Status "ON" State Voltage @ 10mAdc		0.4	Vdc



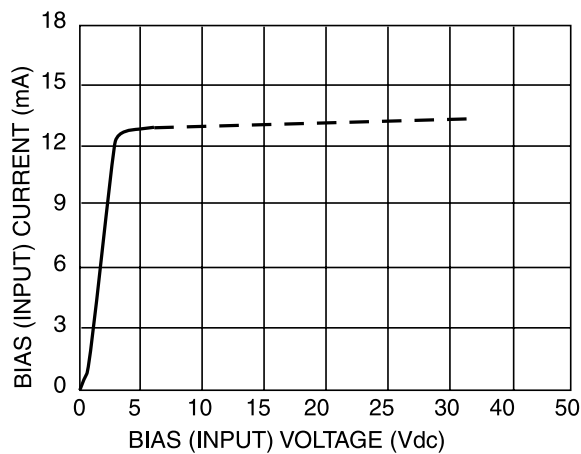
LA SERIES

DIMENSIONS ARE SHOWN IN INCHES
(MILLIMETERS)

- ENCLOSURE: Hermetically Sealed DIP
 LEAK RATE: 1 x 10⁻⁸ CC/Sec Maximum
 MATERIAL: Header - Cold Rolled Steel
 Nickel Plated
 Pins - Copper Core
 Can - Cold Rolled Steel
 Nickel Plated
- WEIGHT: 20 grams max
 TOLERANCE: .XX = ±.010 (±.25)
 .XXX = ±.005 (±.13)

ENVIRONMENTAL SPECIFICATIONS

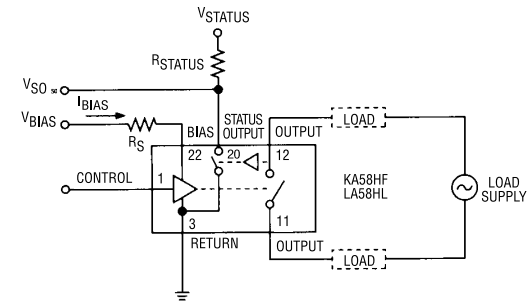
	Min	Max	Units
Ambient Temperature			
Operating	-55	+110	°C
Storage	-55	+125	°C
Shock (0.5 ms Pulse)		1500	g
Vibration (100 g)	10	3000	Hz
Acceleration		5000	g



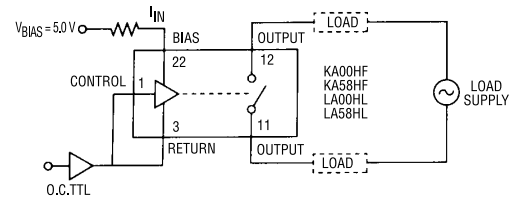
INPUT CURRENT VS VOLTAGE
FIGURE 2 (SEE NOTE 2)

NOTES:

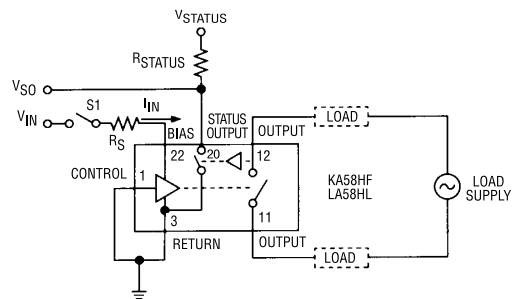
- Control input is compatible with CMOS or open collector TTL (with pull up resistor).
- For bias voltages above 6 Vdc, a series resistor is recommended. Use a standard resistor value equal to or less than the value found from Figure 6.
- Unless otherwise noted, the input voltage for functional tests shall be 5 Vdc.
- Output may temporarily lose blocking capability during and after a surge, until T_j falls below maximum.
- Transient suppression must be used to limit the voltage to < 500 Vpeak when switching inductive loads.



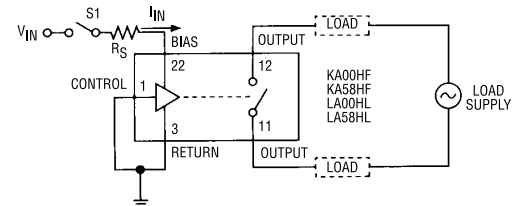
(A) 3 TERMINAL INPUT WITH STATUS (See Note 7)



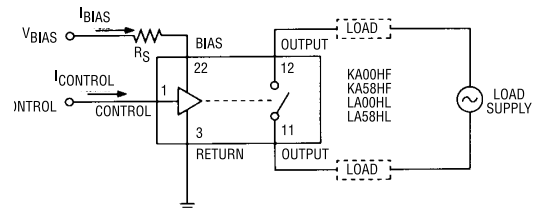
(B) 2 TERMINAL INPUT (OPEN COLLECTOR TTL DRIVE)



(C) 2 TERMINAL INPUT (DIRECT DRIVE) WITH STATUS

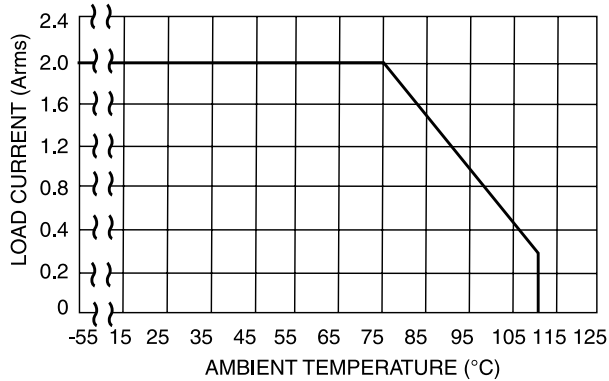


(D) 2 TERMINAL INPUT (DIRECT DRIVE)

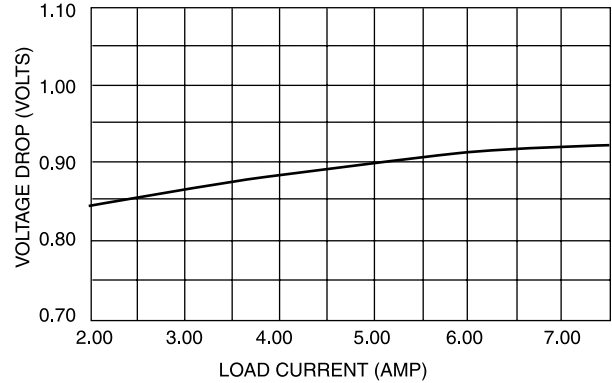


(E) 3 TERMINAL INPUT WITHOUT STATUS

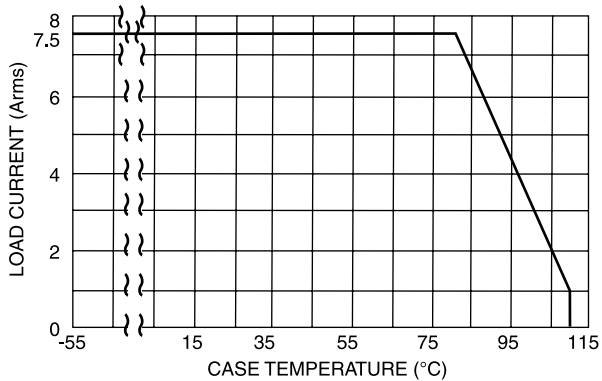
WIRING CONFIGURATION
FIGURE 1
(See Note 1 & 2)



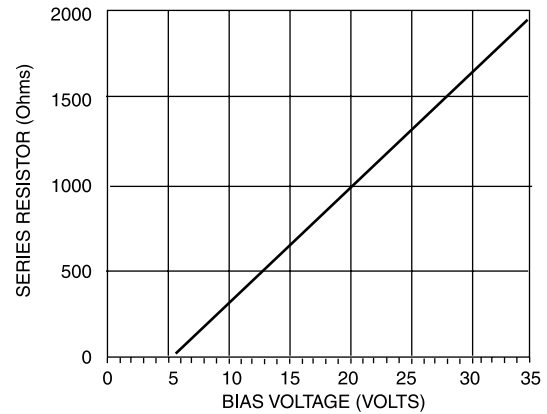
**THERMAL DERATING CURVE
LA SERIES / KA SERIES WITHOUT HEATSINK
FIGURE 3 (A)**



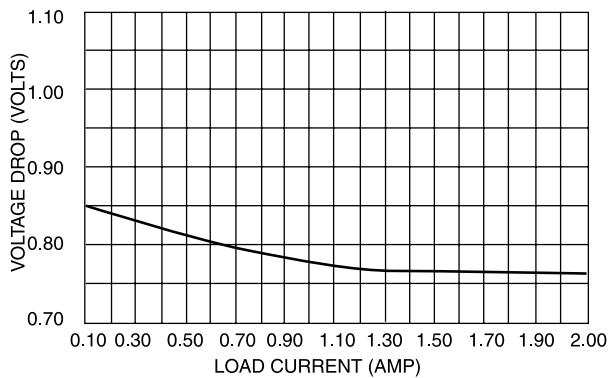
**TYPICAL VOLTAGE DROP VS LOAD CURRENT OF
LA SERIES WITH 1 °C/W HEATSINK
FIGURE 5**



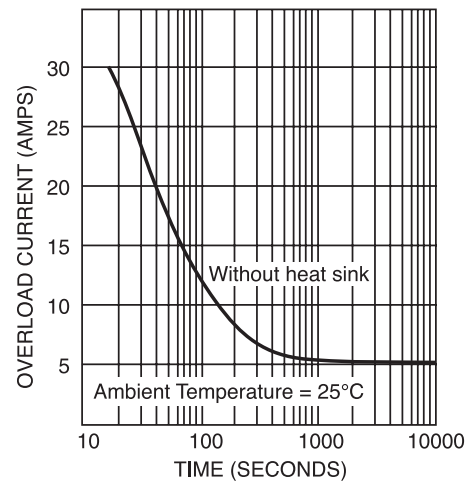
**THERMAL DERATING CURVE
LA SERIES WITH HEATSINK
FIGURE 3 (B)**



**SERIES LIMIT BIAS RESISTOR VS BIAS VOLTAGE
FIGURE 6 (SEE NOTE 2)**



**TYPICAL VOLTAGE DROP VS LOAD CURRENT OF
LA SERIES WITHOUT HEATSINK
FIGURE 4**



**TYPICAL THERMAL TRIP TIME
KA58HF AND LA58HL
FIGURE 7**

1. Do not drop, throw, or in any way mishandle individual relays or cartons containing relays.
2. Store relays in a humidity-controlled, shock- and vibration-free environment. Storage temperature range limits are -25°C to $+85^{\circ}\text{C}$, however, when possible, relays should be stored in an ambient environment.
3. Do not expose relays to humid condition such that condensation may be formed due to sudden drop in temperature. Relays shall be stored in condensation free condition.
4. Do not stack heavy objects directly onto relays.
5. All MSSR shall be treated as Electrostatic Discharge (ESD) sensitive and shall be handled accordingly. Always work in ESD protected station and wear wrist strap before handling the device.
6. When removing relays from packs, do so with extreme care. Do not allow the relays to fall onto any hard surface during unpacking. Do not “pour” the relays from the packing. Do not allow relays to fall onto the floor.
7. When transferring relays to a production area after unpacking, do so only in a suitable container, transport the devices in anti-static container, taking care not to drop the relays into the container, or to drop, throw or mishandle the container in any way.
8. For either metal-cover relays that are hermetically sealed or plastic relays that are not hermetically sealed, any damage to the casing, leads, or connector may compromise the relay’s performance and reliability.
9. Do not reform or reshape plastic relay leads from the original configuration. Trimming relay leads after through hole mounting is acceptable
10. Never subject relays to ultrasonic cleaning environment.
11. Do not submerge plastic relays, which are not hermetically sealed, in cleaning solution or spray aqueous cleaning solution directly onto relays.
12. For plastic relays, which are not hermetically sealed, relays should be baked before use. After bake, relays must be mounted within 8 hours. Relays must be baked again if this 8 hour time period is exceeded. The recommended bake profile is 125°C for 8 hours.
13. After the reflow/mounting process, relays should be baked again after cleaning, prior to a second reflow, or prior to conformal coating.
14. Unless otherwise specified, do not subject relays and relay terminals to reflow solder temperatures above 245°C , 6 seconds maximum. If hand soldering is used, the solder iron tip shall be properly grounded. Observe IPC J-HDBK- 001, paragraph 6.1.0.1 guidelines for heat sensitive components when hand soldering relays.
15. If reshipping product do so in original packaging from factory.
16. Relays should not be exposed to any process or environment that exceeds any limits within this guideline or any published specification that applies to the relay.