

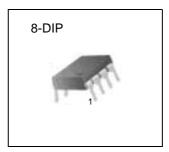
KA2807 Earth Leakage Detector

Features

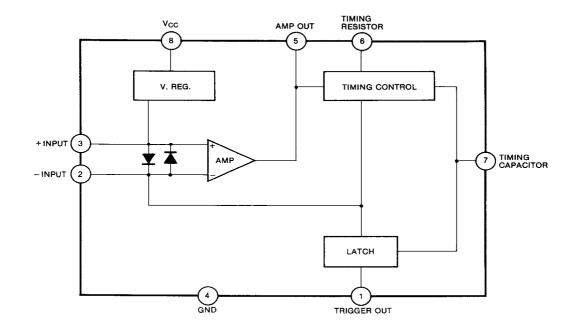
- Full Advantage Of The UL943
- Built-In Voltage Regulator
- Sense Coil: 1000:1
- GND/Neutral Coil: 200:1
- Normal Fault Sensitivity Current is 5mA Typical
- Trip Time in Normal Fault and Ground Neutral Fault is 18ms Typ
- Wide Operating Temperature Range
- Excellent ESD Characteristic
- 1mA Output Current Pulse to Trigger SCR

Description

KA2807 is a IC for ground fault circuit interrupters which are intended to provide electrical shock hazard protection from line-to-ground fault currents on grounded circuits of 120V supplies.



Internal Block Diagram



Absolute Maximum Ratings

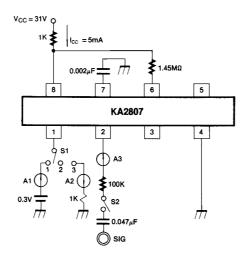
Parameter	Symbol	Value	Unit	
Supply Current	Icc	19	mA	
Power Dissipation	PD	1250	mW	
Operating Temperature Range	TOPR	- 40 ~ + 70	٥C	
Storage Temperature Range	TSTG	- 55 ~ + 150	°C	

Electrical Characteristics

 $(T_A = 25^{\circ}C, I_{CC} = 5mA)$

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Unit
Shunt Regulator Voltage	Vreg	Pin 8, S1:2, S2:OFF	23	26	29	V
Amp Reference Voltage	Vref	Pin 3, S1:2, S2:OFF	9.5	10.5	11.5	V
Amp High Output Voltage	Vон	Pin 5, S1:3, S2:ON Sig: 800Hz, 3.0V _{P-P} Sinewave	17	19	21	V
Amp Low Output Voltage	Vol	Pin 5, S1:3, S2:ON Sig: 800Hz, 3.0V _{P-P} Sinewave	1.5	2.5	3.5	V
Amp Sensitivity Current	ISEN	Pin 2, S1:3, S2:ON Sig: 800Hz, 1.0Vp-p ~ 2.5Vp-p Sinewave	3.5	5	6.5	μA
Latch On Voltage	Von(latch)	Pin 7, S1:3, S2:ON Sig: 800Hz, 3.0V _{P-P} Sinewave	16.5	17.5	19.5	V
SCR Trigger Current	ITR	Pin 1, S1:3, S2:ON Sig:800Hz, 3.0VP-P Sinewave	0.5	1	2.0	mA
Output Low Voltage	Vs 1	Pin 1, S1:2, S2:OFF	-	100	240	mV
Output Impedance	ZO	Pin 1, S1:2, S2:OFF	-	100	250	W
Output Sink Current	ISINK	Pin 1, S1:2, S2:OFF	2.0	6.0	-	mA

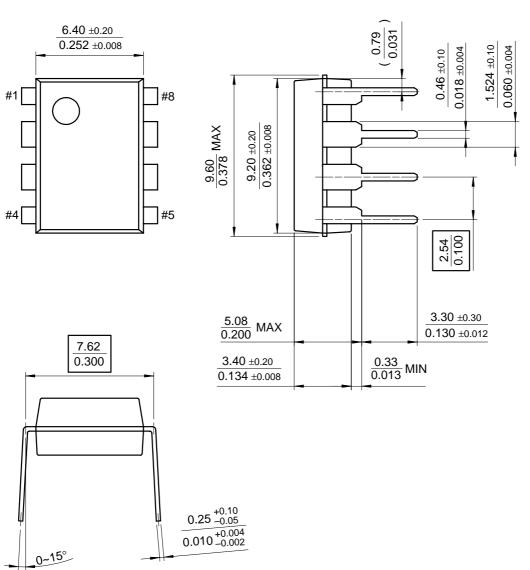
Test Circuit



Mechanical Dimensions

Package

Dimensions in millimeters



8-DIP

Ordering Information

Product Number	Package	Operating Temperature
KA2807	8-DIP	-40 ~ + 70°C

KA2807

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- 2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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