66033 OPTICALLY COUPLED SCR

OPTOELECTRONIC PRODUCTS DIVISION

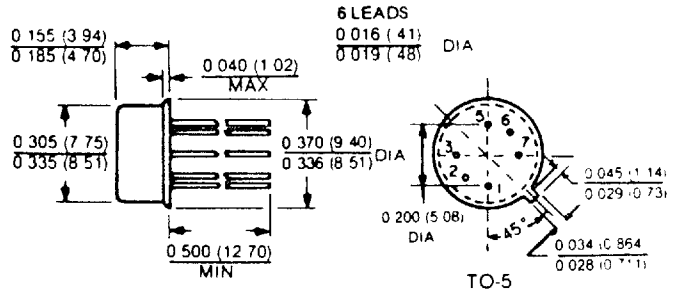
T-41-87

FEATURES

- HERMETICALLY SEALED
- FULL MILITARY TEMPERATURE RANGE
- TO-5 PACKAGE

TYPICAL APPLICATIONS:

- LAMP DRIVE
- SOLID STATE RELAY
- MOTOR CONTROL CIRCUIT



NOTE All linear dimensions are in inches (millimeters)

DESCRIPTION:

The optically coupled SCR consists of an infrared LED coupled with a light sensitive SCR, in a hermetically sealed package The optically coupled SCR is available in standard or screened versions (MIL-S-19500), or tested to customer specification.

ABSOLUTE MAXIMUM RATINGS

Input-to-Output Voltage	± 1 KV
Continuous Forward Input Current (See Note 1)	100mA
Input Power Dissipation (See Note 2)	125mW
Input Diode Reverse Voltage	4 V
Forward Blocking Voltage	400V
Reverse Blocking Voltage	400V
Peak Forward Output Current (10ms)	15 A
Continuous Forward Output Current (See Note 3)	1.0 A
Output Power Dissipation (See Note 4)	1.0W
Operating Temperature	−55°C to + 125°C
Storage Temperature	−65°C to + 150°C
Lead Temperature 1.6MM (1/16 Inch) From Case For 10 Seconds	240°C

NOTES
1) Derate Linearly at a rate of 1mA/°C above 25°C
2) Derate Linearly at a rate of 1 25mW/°C above 25°C
3) Derate Linearly at a rate of 15mA/°C above 25°C
4) Derate Linearly at a rate of 10mW/°C above 25°C

66033 OPTICALLY COUPLED SCR, *Continued*

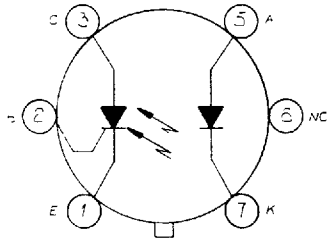
OPTICAL/ELECTRICAL CHARACTERISTICS AT (25°C)

GaAlAs LIGHT EMITTING DIODE			PHOTO SCR			
	FORWARD VOLTAGE	REVERSE VOLTAGE	OFF-STATE CURRENT	REVERSE CURRENT	HOLDING CURRENT	MAIN TERMINAL VOLTAGE
Symbol	V_f	I_R	$I_{D\ RM}$	$I_{R\ RM}$	I_H	V_{TM}
Conditions	I_f = 20mA	V_R = 4V	I_f = 0 mA	I_f = *0 mA*	R_{GK} = 2K	I_{TM} = 300 mA
Limits	MAX	MAX	MAX	MAX	MAX	MAX
	1.7 Volts	10 *u* A	10 μA	10 μ *A*	5.0 mA	1.4 V

COUPLED ELECTRICAL CHARACTERISTICS (25°C)

	OFF-STATE INPUT CURRENT	CURRENT to TRIGGER	TRIGGER TIME	INPUT-to OUTPUT COUPLED dv/dt	
Symbol	I_f	I_{FT}	T_{ON}	C_{MMR}	
Units	mA	mA	μS	V/μ *S*	
Limits	MAX	MIN	MAX	MIN	TYP
66033-101	.25	30	50	1000	5000
66033-102	1.0	30	50	1000	5000

*NOTE: MEASURED WITH 2.0K Ω R_{BK} RESISTOR



Anode of SCR in Electrical Contact with Case

BOTTOM VIEW
NC-NO INTERNAL CONNECTION