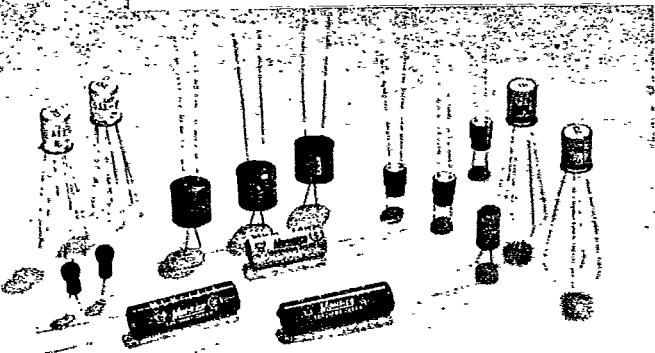
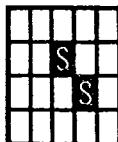


SILICON SENSORS INC

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**PHOTO COUPLED
LED + CdS PHOTO COUPLED
Ne LAMP + CdS PHOTO COUPLED
TUNGSTEN LAMP + CdS PHOTO COUPLED**

**SILICON SENSORS, INC.**

HIGHWAY 18 EAST, DODGEVILLE, WI 53533, 608/935-2707
CABLE ADDRESS: SOLAR CELL DOV • INTERNATIONAL TELEX: 910-280-1430

PHOTO COUPLED

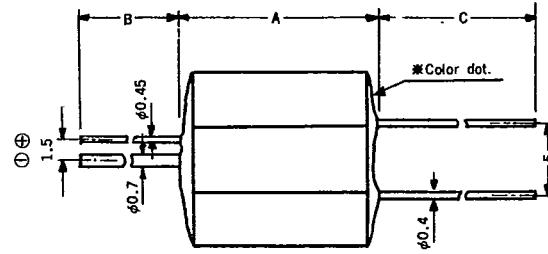
MCD-725

UL Recognized No. E74740

2W/100ms

800V/100ms

(**) H.L



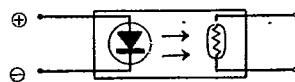
MCD-725E

UL Recognized No. E74740

MCD-725

1W/100ms

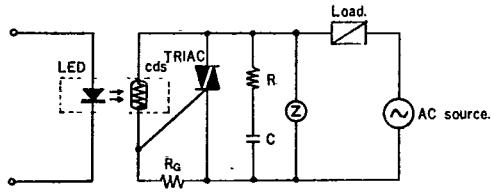
400V/100ms



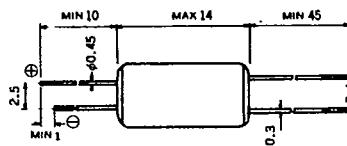
	A	B	C	D	unit : mm
725	MAX 15.7	MIN 10	MIN 43	11.2φ	
725E	MAX 17.0	MIN 8.5	MIN 18.5	10.0φ	

CHARACTERISTICS		SYMBOL	MCD725			MCD725E			UNIT
			MIN	TYP.	MAX.	MIN.	TYP.	MAX.	
(LED)	Power Dissipation	P _D			100			80	mW
	Current — Max. Forward	I _{FM}			35			30	mA
	Current — Forward	I _F		20			15		mA
	Voltage — Forward	V _F		2.0			1.8		V
	Voltage — Reverse; Max.	V _{RM}			4			4	V
(CdS)	Resistance On	R _{ON}	0.4		3.0@	0.6		2.5	kΩ
	Resistance Off	R _{OFF}	1.0			3.0			MΩ
	Power-Max. Cell	P _{GM}			90			70	mW
	Voltage — Max. Cell	V _{GM}			350			300	Vdc
	(⑥) Rise Time (63%)	T _r			10			10	ms
	Fall Time (37%)	T _f			10			10	ms
	Voltage Isolation	V _{ISO}			3000			3000	Vdc
	Temperature-Operating	T _{opr}	-20		+60	-20		+60	°C
	Temperature-Storage	T _{stg}	-25		+70	-25		+70	°C

RANGE	R _{ON}	COLOR DOT	TRIAC (IGR)
H	0.9~3.0kΩ	RED	10mA
L	0.4~1.1kΩ	YELLOW	10mA

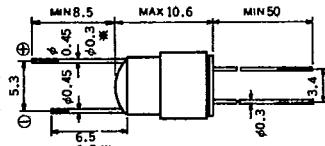
⑥ Load resistance R_L = 1 kΩ

MCD-521L, H



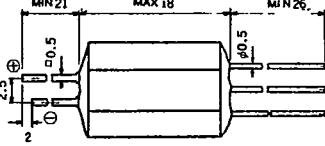
Body diameter 6.8

MCD-527, -526, -537



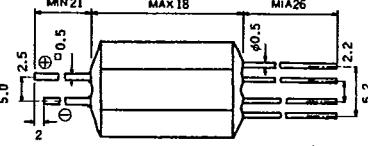
Body diameter $\phi 7.0$
* EP (MCD-526)

MCD-7212P



Body diameter 10.0

MCD-7212F



Body diameter 10.0

T_a=25°C

TYP Rating	CHARACTERISTICS	SYM BOL	(d) MCD-521L			(e) MCD-521H			MCD-527			MCD-526			MCD-7212P			MCD-7212F			UNIT
			MIN	_TYP_	MAX	MIN	_TYP_	MAX	MIN	_TYP_	MAX	MIN	_TYP_	MAX	MIN	_TYP_	MAX	MIN	_TYP_	MAX	
(LED)	Power Dissipation	P _D	90		90	90		90	23		100	100		100	100	100	100	100	100	100	mW
	Current — Max. Forward	I _{FM}	50		50	50		50	10		50	50		50	50	50	50	50	50	50	mA
	Current — Forward	I _F	30		30	30		30	6		30	30		30	30	30	30	30	30	30	mA
	Voltage — Forward	V _F	1.8		1.8	1.7		1.9	1.9		1.9	1.9		1.9	1.9	1.9	1.9	1.9	1.9	1.9	V
	Voltage -- Reverse; Max.	V _R	3		3	2		4	4		4	4		4	4	4	4	4	4	4	V
(CdS)	Resistance On	R _{ON}	0.6		1.0	1.0		1.0	2.0		④ 1.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	kΩ
	Resistance Off	R _{off}	3		3	2		3	1		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	MΩ
	Power-Max. Cell	P _C	70		70	70		70	60		60	50		50	50	50	50	50	50	50	mW
	Voltage — Max. Cell	V _{CM}	150		150	150		150	150		150	150		150	150	150	150	150	150	150	V
	Rise Time (63%)	T _r	2		1	1		2	1		1	1		1	1	1	1	1	1	1	ms
	Fall Time (37%)	T _f	60		40	60		80	50		50	50		50	50	50	50	50	50	50	ms
	Voltage Isolation	V _{ISO}	800						3000												V _{dc}
	Temperature-Operating	T _{opr}							-20 ~ +60												°C
	Temperature-Storage	T _{stg}							-30 ~ +70												°C

- MCD 521
- MCD527
- MCD526
- MCD7212
- MCD—7212F

Fig 1 Output resistance vs.
Input current

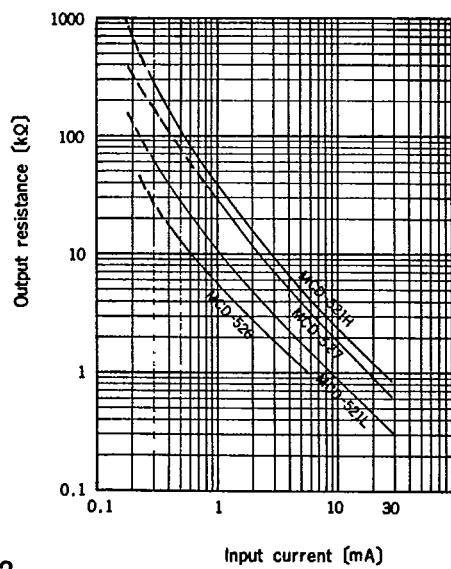


Fig2 Output resistance vs.
Input current

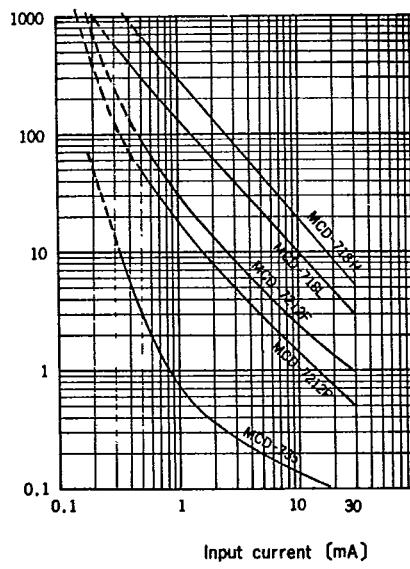
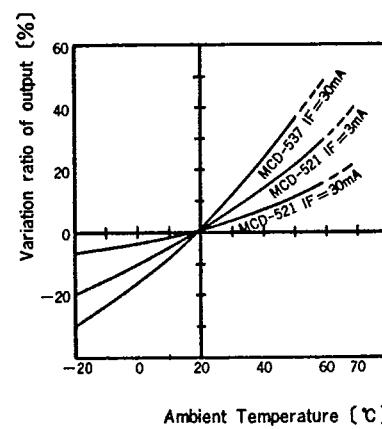
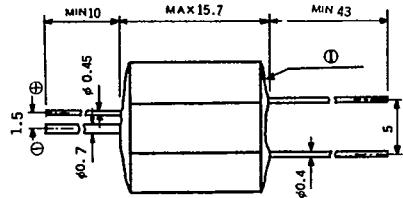


Fig3 Temperature Coefficient (Typ.)

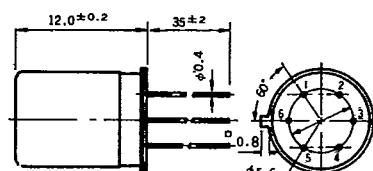


LED+CdS PHOTO COUPLERS

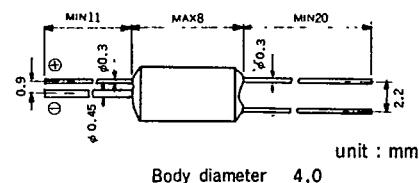
MCD-718, -735



MTD-533-6



MCD-329



Body diameter 11.2

Body diameter 8.5

Bottom view

Ta=25°C

	CHARACTERISTICS	SYM BOL	① MCD-718L	① MCD-718H	MCD-735	MCD-537	MTD-533-6	MCD-329	UNIT
			MIN TYP MAX	MIN TYP MAX	MIN TYP MAX	MIN TYP MAX	MIN TYP MAX	MIN TYP MAX	
(LED)	Power Dissipation	P _D	100	100	100	90	80	60	mW
	Current — Max. Forward	I _{FM}	40	40	35	50	40	30	mA
	Current — Forward	I _F	10	10	15	30	20	10	mA
	Voltage — Forward	V _F	2	2	1.9	1.8	2	1.6	V
	Voltage — Reverse; Max.	V _R	4	4	4	2	3	4	V
(CdS)	Resistance On	R _{ON}	8	16	12	26	0.15	5	⑧ 10
	Resistance Off	R _{OFF}	2	2	1	100	100	1	MΩ
	Power-Max. Cell	P _C	72	72	70	50	50	30	mW
	Voltage — Max. Cell	V _{CM}	350	350	100	300	300	100	V _{dc}
	⑨ Rise Time (63%)	T _R	10	10	⑩ 3	3	3	1	ms
	Fall Time (37%)	T _f	50	50	⑪ 8	5	5	50	ms
	Voltage Isolation	V _{ISO}			3000			500	V
	Temperature-Operating	T _{opr}			-20 ~ +50				°C
	Temperature-Storage	T _{stg}			-30 ~ +70				°C

• M C D 735 (TYP 100Ω)

• M C D 718

• M C D 537 M T D — 533 — 6

• M C D — 329

⑧ ±20%

⑩ R_L = 100Ω

⑪ (CdS) L = H

Fig 1 Response Time vs. Load resistance

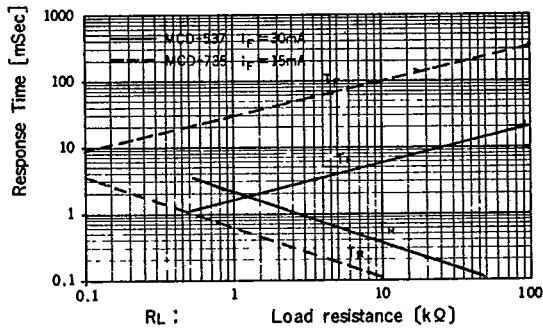


Fig3

Fig4

Fig2 Derating curve of power dissipation

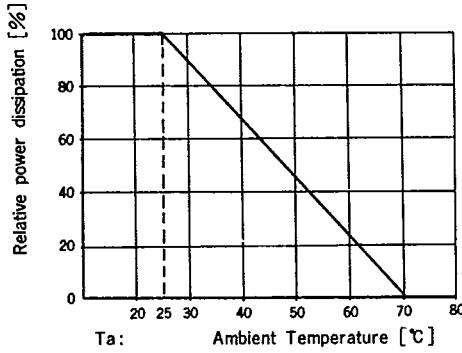
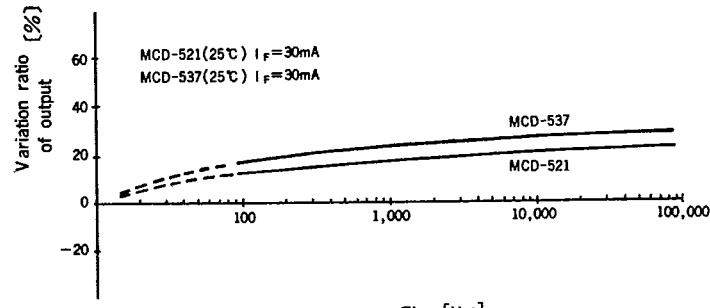
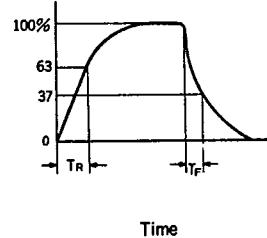
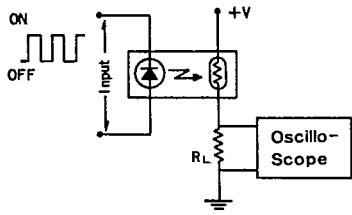


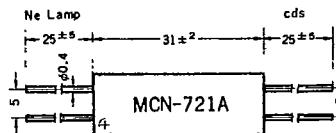
Fig5

Life Test

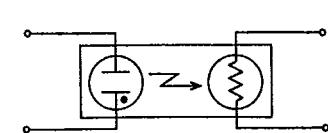


Ne Lamp + CdS PHOTO COUPLERS

8253922 SILICON SENSORS INC
MCN-721A



Body diameter 9.3 φ

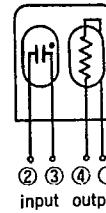
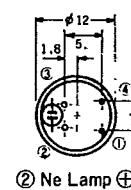
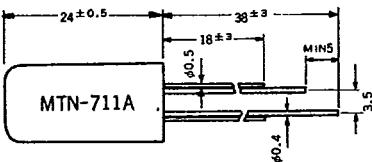


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75C 00355

D T-41-73

MTN-711A



Ta=25°C

TYP. Rating	CHARACTERISTICS	SYM BOL	① MCN-721A			② MTN-711A			UNIT	CONDI TION
			MIN	TYP	MAX	MIN	TYP	MAX		
(Ne Lamp)	Lamp Current	I _{LM}			1.9			1.9	mA	
	Bleak Down	V _Z	61	68	75			75	V	
	Series Res. (Rs = 30 kΩ)	V _C			100			100	V	
(CdS)	Resistance On	R _{ON}	0.2	0.4	0.6			1.0	kΩ	
	Resistance Off	R _{OFF}	5 (b)					0.5	MΩ	
	Power-Max. Cell	P _C			125			50	mW	
	Voltage — Max. Cell	V _{CM}			150			200	V _{dc}	
	(a) Rise Time (63%)	T _R		1			1		ms	
	Fall Time (37%)	T _f		40			80		ms	
	Voltage Isolation	V _{ISO}			500			3000	V _{dc}	
	Temperature-Operating	T _{opr}			-20 ~ +60			-20 ~ +50	°C	
	Temperature-Storage	T _{stg}			-30 ~ +70			-30 ~ +60	°C	

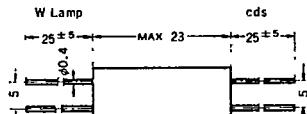
(a) R_L=10k Ω

(c) 100V 30k Ω

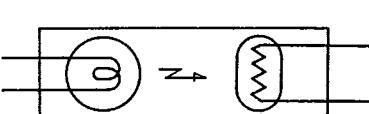
(b) OFF 10

TUNGSTEN LAMP + CdS PHOTO COUPLERS

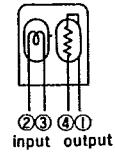
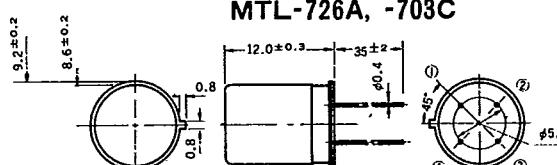
MCL-703C, -723C



Body diameter 9.3 φ



MTL-726A, -703C



Ta=25°C

TYP. Rating	CHARACTERIS TICS	SYM BOL	MCL-703C			MCL-723C			MTL-726A			MTL-703C			UNIT.
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
(Lamp)	Voltage — Max.	V _M			10			10			5			10	V
	Current — Max.	I _M		16			16			30			16		mA
(CdS)	Resistance On	R _{ON}	200	400	600	125	250	375	30	60	90	100	200	300	Ω
	Res. @ ½ R.L.V.	R _{½ RLV}	4			3			0.5			3			kΩ
	Resistance Off	R _{OFF}	5			5			5			5			MΩ
	Power-Max. Cell	P _C		50			125			125			50		mW
	Voltage — Max. Cell	V _{CM}		150			150			150			150		V _{dc}
	(a) Rise (63%)	T _R		10			8			6			8		ms
	Fall (37%)	T _f		120			60			60			120		ms
	Voltage Isolation	V _{ISO}			500										V _{dc}
	Temp-Operating	T _{opr}				-20 ~ +60									°C
	Temp-Storage	T _{stg}				-30 ~ +70									°C