

For AC/DC Load Dual-channel / Package General-purpose Type Optical MOS Relay

OCM4 □ 6, 4 □ 7 series

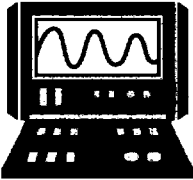
- Space saving ▶ Dual channels mounted in the 6-pin DIP space
- On resistance ▶ 2~33 Ω
- Load current ▶ 250~75 mA
- Recommended input current ▶ 10 mA

■ Absolute maximum ratings


(Ambient temperature $T_a=25^{\circ}\text{C}$)

Product names				OCM406 OCM407	OCM416 OCM417	OCM426 OCM427	OCM436 OCM437	OCM446 OCM447
Item	Symbol	Condition	Unit					
Input characteristics	Continuous forward current	I_F		50				
	Derating factor of continuous forward current	ΔI_F		Refer to [Derating Factor of Continuous Forward current] of characteristics data				
	Peak forward current	I_{FM}	Pulse width 100 μs Cycle 10ms	0.5				
	Reverse voltage	V_R		5				
	Power dissipation	P_D		75				
Output characteristics	Load voltage	V_{OFF}		60	100	200	350	400
	Load current	I_{ON}		250	200	150	100	75
	Derating factor of load current	ΔI_{ON}		Refer to [Derating Factor of Load Current] of characteristics data				
	Surge load current	I_{SUG}	Pulse width: 1ms 1shot	0.5		0.3		
	Power dissipation	P_D		300				
	Total power dissipation	P_{tot}		325				
	Isolation voltage	V_{IO}				500		
					4000			
				OCM406	OCM416	OCM426	OCM436	OCM446
				OCM407	OCM417	OCM427	OCM437	OCM447
Operating temperature	T_{opr}		C	-40~+85				
Storage temperature	T_{stg}		C	-40~+100				


APPLICATIONS




Measurement equipment



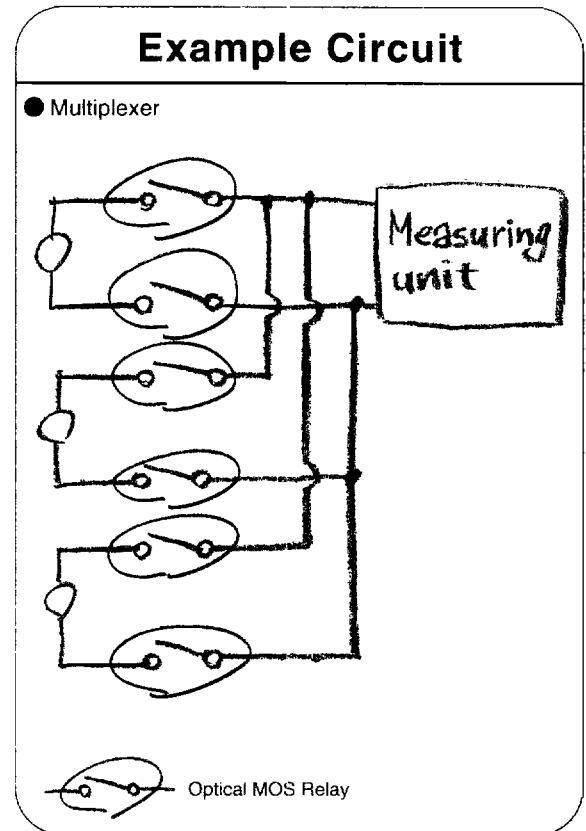
Security equipment



Office automation system



Industrial equipment



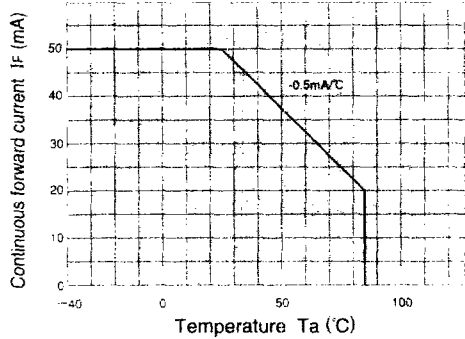
Electrical characteristics

(Ambient temperature Ta=25°C)

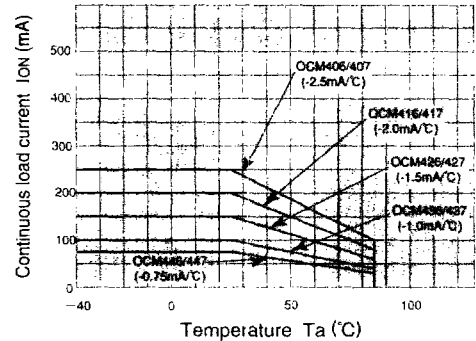
Product name				OCM406 OCM407	OCM416 OCM417	OCM426 OCM427	OCM436 OCM437	OCM446 OCM447					
Item	Symbol	Condition	Unit										
Input characteristics	Forward voltage	VF	IF=10mA	MIN		1.0							
				MAX		1.3							
	Reverse voltage	IR	VR=5V	MAX	μA		10						
	Operation input current ^{*1}	IFA	ION=100mA	MAX	mA		5						
Output characteristics	Recovery input current	IFR	VOFF=Rating ION=100 μA	MIN	mA		0.2						
				On-resistance	RON	IF=10mA ION=100mA OCM406,407,416,417 OCM426,427 ION=Rating ^{*4} Time to flow current is within one second	MIN	Ω	1.0	2.0	4.0	7.0	10
							TYP	Ω	2.0	3.0	7.0	17	22
							MAX	Ω	3.0	4.0	10	24	33
Off-state leakage current ^{*2}	IOFF	VOFF=Rating	MAX	μA		1.0							
Coupling characteristics	Output terminal capacitance	COU	VOFF=50V f=1MHz	TYP	pF	35	25	15	12	10			
	Input-to-output capacitance	CIO	f=1MHz	TYP	pF			1.3					
	Turn on time ^{*3}	ton	IF=10mA ION=100mA OCM406,407 OCM416,417 OCM426,427	TYP	ms			0.3					
				MAX	ms			1.0					
Turn off time ^{*3}	toff	IOFF=50mA OCM436,437 OCM446,447	TYP	ms			0.2						
			MAX	ms			1.0						

*1 : Can correspond to special specification I_{FA} < 3.0mA
 *2 : Can correspond to special specification I_{OFF} < 1.0nA
 *3 : Can correspond to special specification ton / toff < 0.5μs
 *4 : Except (OCM406, 407, 416, 417, 426, 427)

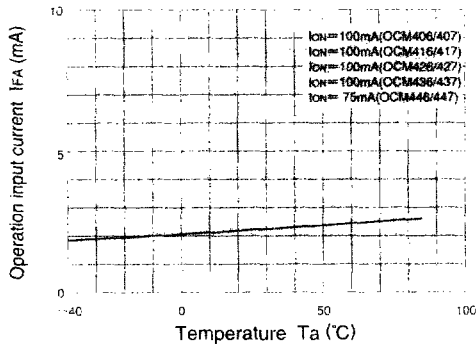
OCM4 6, 4 7 series Characteristics Curves



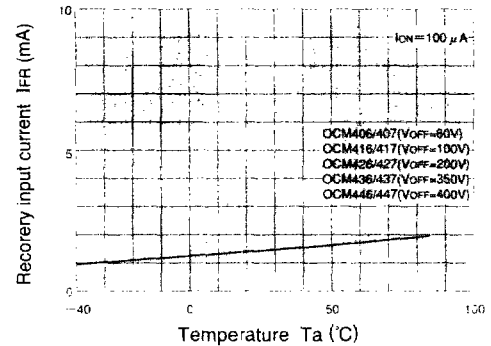
Derating factor of continuous forward current



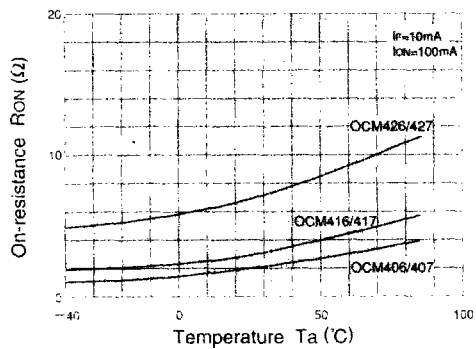
Derating factor of load current



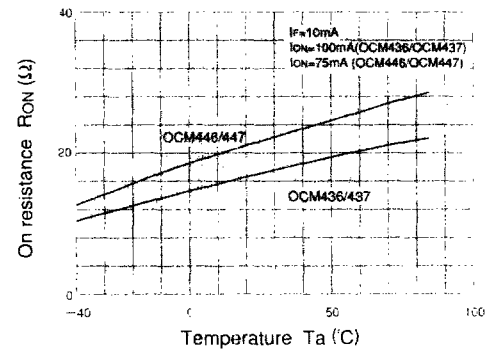
Operation input current vs. Ambient temperature



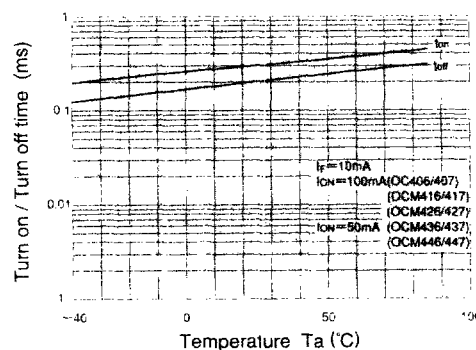
Recovery input current vs. Ambient temperature



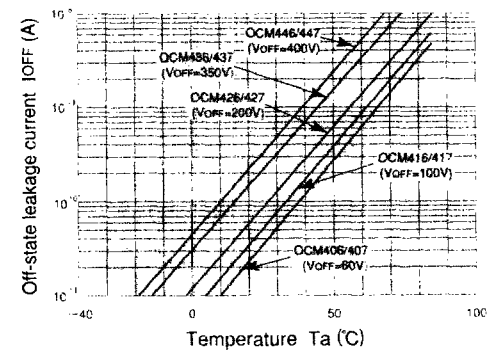
On-resistance vs. Ambient temperature-1



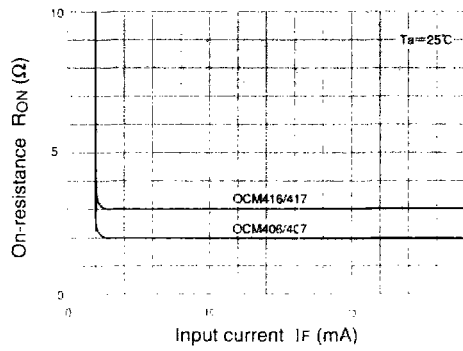
On-resistance vs. Ambient temperature-2



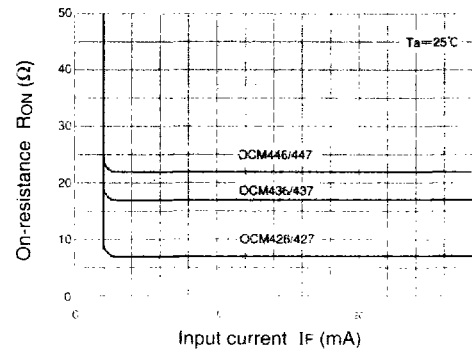
Turn on/Turn off time vs. Ambient temperature



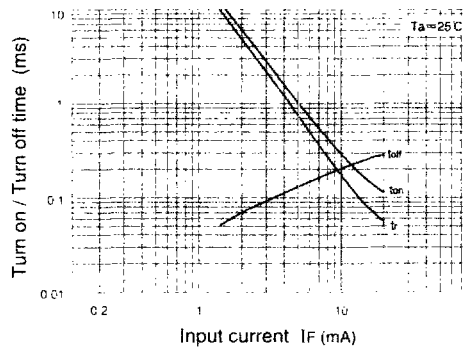
Off-state leakage current vs. Ambient temperature



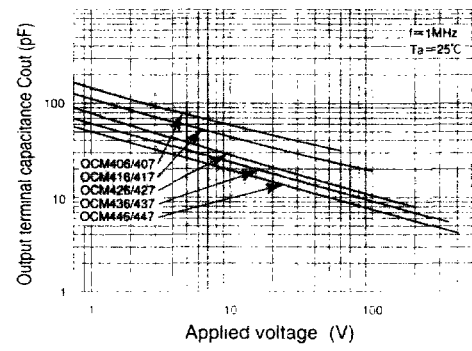
Continuous forward current vs. On-resistance-1



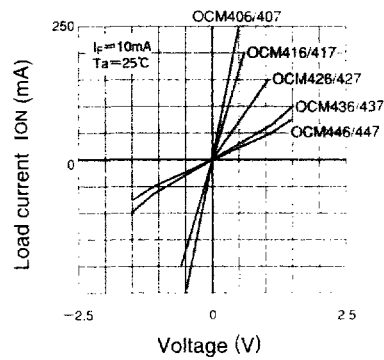
Continuous forward current vs. On-resistance-2



Continuous forward current vs. Turn on/Turn off time



Output terminal capacitance vs. Applied voltage



Load current vs. Voltage