

For AC/DC Load General-purpose SOP Type Optical MOS Relay

OCMS2 □ 6, 2 □ 7 series

■ SOP type ► Mounting area 1/2, Mounting height $\leq$ 1/2 (compared with 6pin DIP)

■ ON resistance ► 2~33 Ω

■ Load current ► 320~100 mA

■ Recommended input current ► 10 mA

■ Absolute maximum ratings

(Ambient temperature Ta=25°C)

Product name				OCMS206	OCMS216	OCMS226	OCMS236	OCMS246
Item	Symbol	Condition	Unit					
Input characteristics	Continuous forward current	I _F	mA			50		
	Derating factor of continuous forward current	ΔI_F	mA/°C	Refer to [Derating Factor of Continuous Forward current] of characteristics data				
	Peak forward current	I _{FM}	Pulse width 100 μ s Cycle 10ms			0.5		
	Reverse voltage	V _R	V			5		
	Power dissipation	P _{DL}	mW			75		
Output characteristics	Load voltage	V _{OFF}	V	60	100	200	350	400
	Load current	I _{ON}	mA	320	280	180	120	100
	Derating factor of load current	ΔI_{ON}	mA/°C	Refer to [Derating Factor of Load Current] of characteristics data				
	Surge load current	I _{SUG}	Pulse width 1ms 1shot		1.0		0.8	0.7
	Power dissipation	P _D	mW			300		
	Total power dissipation	P _{tot}	mW			325		
	Isolation voltage	V _{IO}	V(rms)			1500		
	Operating temperature	T _{opr}	°C			-40~+85		
	Storage temperature	T _{stg}	°C			-40~+100		

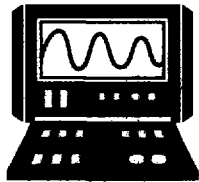
APPLICATIONS



Automatic meter reading system



Card modem



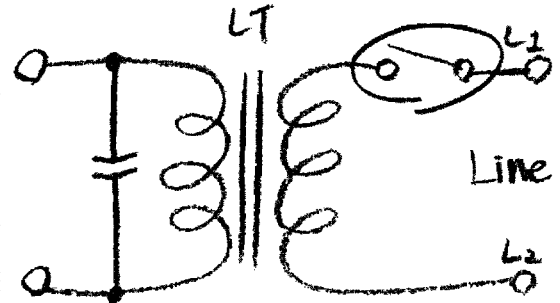
Measurement equipment



Industrial equipment

Example Circuit

● Dial pulse



Optical MOS Relay

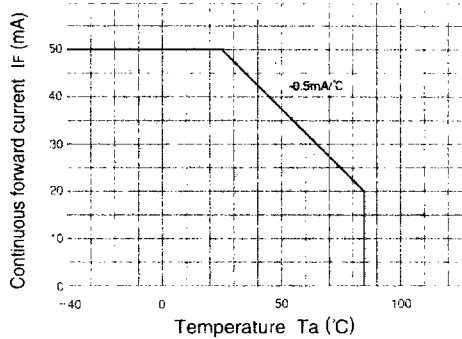
Electrical characteristics

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

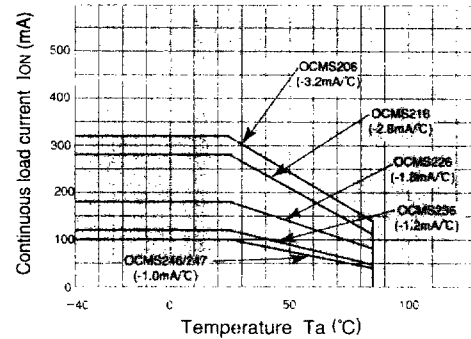
Product name					OCMS206	OCMS216	OCMS226	OCMS236	OCMS246
Item	Symbol	Condition	Unit						
Input characteristics	Forward voltage	V_F	$I_F=10\text{mA}$	MIN					
				MAX					
	Reverse voltage	V_R	$V_R=5\text{V}$	MAX					
	Operation input current ^{*1}	I_{FA}	$I_{ON}=100\text{mA}$	MAX					
Output characteristics	Recovery input current	I_{FR}	$V_{OFF}=\text{Rating}$ $I_{ON}=100\mu\text{A}$	MIN					
				MAX					
	On-resistance	R_{ON}	$I_F=10\text{mA}$ $I_{ON}=100\text{mA}$ Time to flow current is within one second	MIN	1.0	2.0	4.0	7.0	10
				TYP	2.0	3.0	7.0	17	22
Coupling characteristics	Off-state leakage current ^{*2}	I_{OFF}	$V_{OFF}=\text{Rating}$	MAX	3.0	4.0	10	24	33
	Output terminal capacitance	C_{OUT}	$V_{OFF}=50\text{V}$ $f=1\text{MHz}$	TYP	pF	35	25	15	12
	Input-to-output capacitance	C_{IO}	$f=1\text{MHz}$	TYP	pF				
	Turn on time ^{*3}	t_{on}	$I_F=10\text{mA}$ $I_{on}=100\text{mA}$ OCMS206 OCMS216 OCMS226	TYP	ms				
Coupling characteristics	Turn off time ^{*3}	t_{off}	$I_{off}=50\text{mA}$ OCMS236 OCMS246	TYP	ms				
				MAX					

*1: Can correspond to special specification $I_{FA} < 3.0\text{mA}$ *2: Can correspond to special specification $I_{off} < 1.0\text{mA}$ *3: Can correspond to special specification $t_{on}/t_{off} < 0.5\text{ms}$

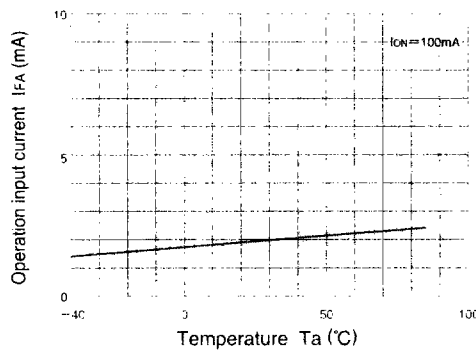
OCMS2 6, 2 7 series Characteristics Curves



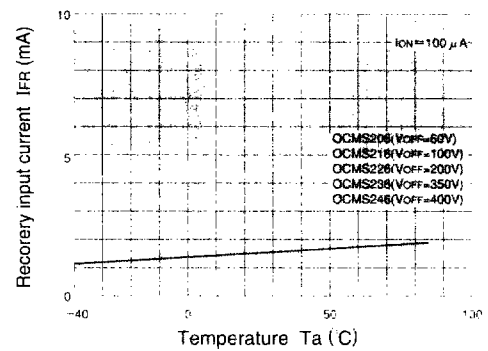
Derating factor of continuous forward current



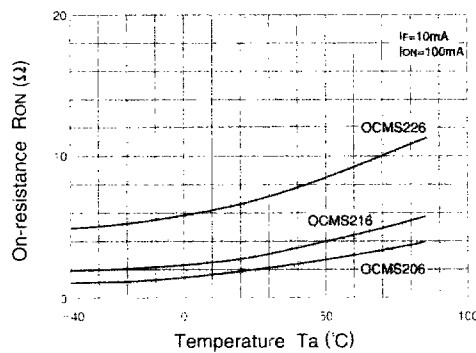
Derating factor of load current



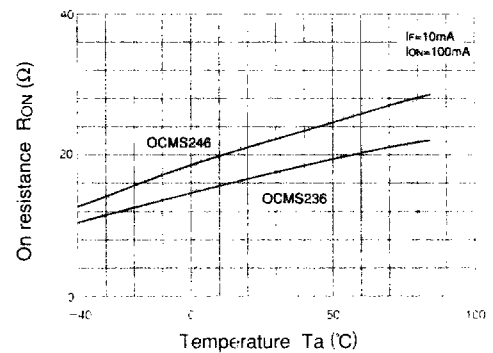
Operation input current vs. Ambient temperature



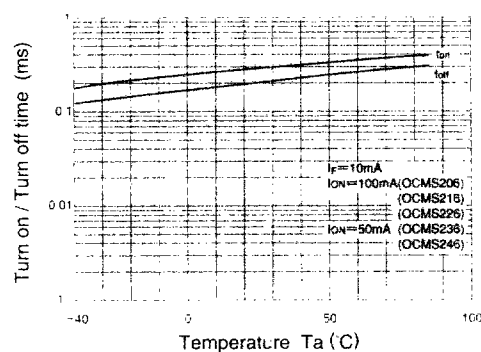
Recovery input current vs. Ambient temperature



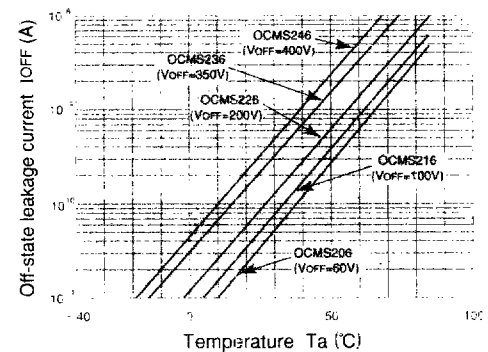
On-resistance vs. Ambient temperature-1



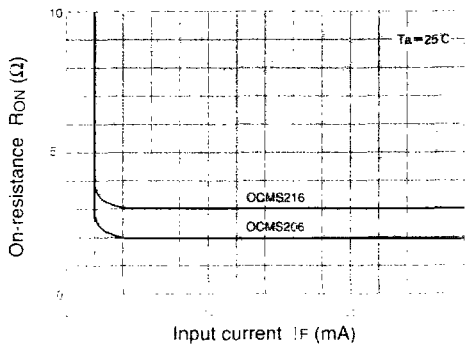
On-resistance vs. Ambient temperature-2



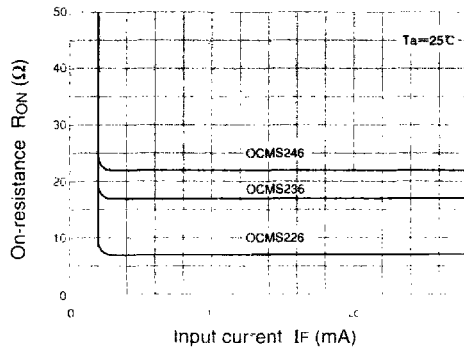
Turn on/Turn off time vs. Ambient temperature



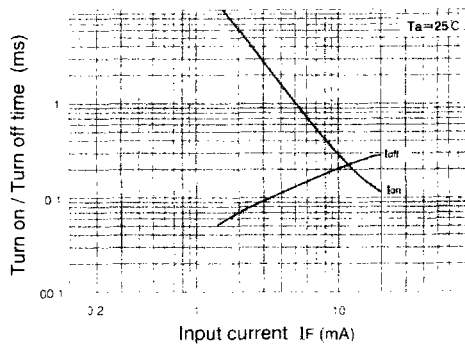
Off-state leakage current vs. Ambient temperature



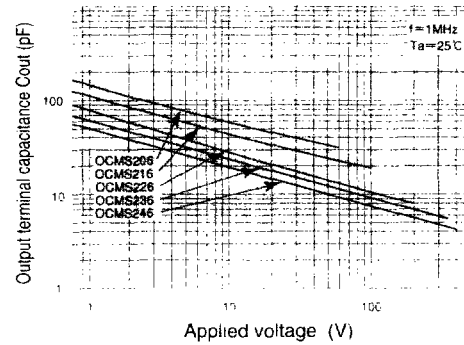
Continuous forward current
vs. On-resistance-1



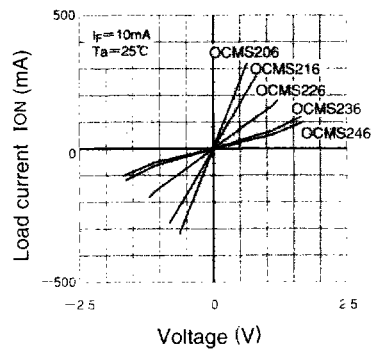
Continuous forward current
vs. On-resistance-2



Continuous forward current
vs. Turn on/Turn off time



Output terminal capacitance
vs. Applied voltage



Load current vs. Voltage