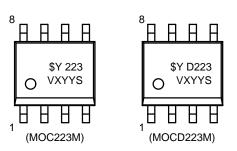


MARKING DIAGRAMS



\$Y = onsemi Logo 223/D223 = Specific Device Code

V = DIN EN/IEC60747-5-5 Option

X = One-Digit Year Code
YY = Digit Work Week
S = Assembly Package Code

ORDERING INFORMATION

See detailed ordering and shipping information on page 7 of this data sheet.

• These Devices are Pb-Free and Halogen Free

Applications

- Low Power Logic Circuits
- Interfacing and Coupling Systems of Different Potentials and Impedances
- Telecommunications Equipment
- Portable Electronics
- Solid State Relays

1



NGS $T_A = 25^{\circ}C$ unless otherwise specified.

Parameter	Value	Unit	
ature	-40 to +125	°C	
ng Temperature	-40 to +100		
ature	-40 to +125		
nperature	260 for 10 s		
ver Dissipation @ T _A = 25°C	240	mW	
5°C	2.94	mW/°C	
	•		
vard Current	60	mA	
- Peak (PW = 100 μs, 120 pps)	1.0	А	
	6.0	V	
ipation @ T _A = 25°C	90	mW	
5°C	0.8	mW/°C	
ector Current	150	mA	
r Voltage	30	V	
Voltage, MOC223M	70		
r Voltage	7		
tor Power Dissipation @ T _A = 25°C	150	mW	
e Above 25°C	1.76	mW/°C	

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS $T_A = 25^{\circ}C$ unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Тур	Max	Unit
EMMITER				-	-	
V_{F}	Input Forward Voltage	I _F = 1.0 mA	-	1.08	1.3	V
I _R	Reverse Leakage Current	V _R = 6.0 V	-	0.001	100	μΑ
C _{IN}	Input Capacitance		-	18	_	pF
DETECTOR						
I _{CEO1}	Collector–Emitter Dark Current	$V_{CE} = 5.0 \text{ V}, T_{A} = 25^{\circ}\text{C}$	_	1.0	50	nA
I _{CEO2}	7	V _{CE} = 5.0 V, T _A = 100°C	-	1.0	_	μΑ
BV _{CEO}	Collector–Emitter Breakdown Voltage	I _C = 100 μA	30	100	_	V
BV _{CBO}	Collector-Base Breakdown Voltage	I _C = 100 μA	70	120	_	
BV _{ECO}	Emitter-Collector Breakdown Voltage	I _E = 100 μA	7	10	_	
C _{CE}	Collector-Emitter Capacitance	f = 1.0 MHz, V _{CE} = 0	-	5.5	_	pF
COUPLED						
CTR	Current Transfer Ratio	<u>.</u> 				

ELECTRICAL CHARACTERISTICS $T_A = 25$ °C unless otherwise specified. (continued)

		• • • •				
Symbol	Parameter	Test Conditions	Min	Тур	Max	Unit
ISOLATION CHARACTERISTICS						
V _{ISO}	Input-Output Isolation Voltage	t = 1 min	2500	-	-	VAC _{RMS}
C _{ISO}	Isolation Capacitance	V _{I–O} = 0, f = 1 MHz	-	0.2	-	pF
R _{ISO}	Isolation Resistance	$V_{I-O} = \pm 500 \ V_{DC}, T_A = 25^{\circ}C$	10 ¹¹	_	_	Ω

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

TYPICAL PERFORMANCE CURVES

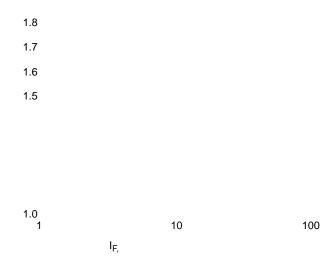
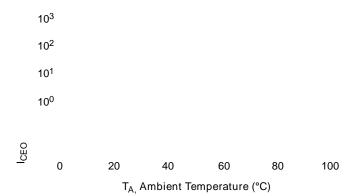


Figure 3. LED Forward Voltage vs. Forward Current

TYPICAL PERFORMANCE CURVES



REFLOW PROFILE

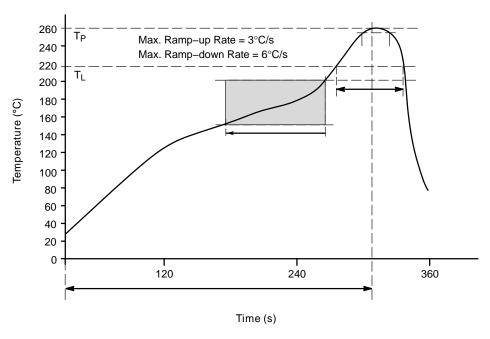


Figure 9. Reflow Profile

ORDERING INFORMATION

Part Number	Package	Shipping [†]
MOC223M	Small Outline 8-Pin	50 Units / Tube
MOC223R2M	Small Outline 8-Pin	2500 Units / Tape and Reel
MOC223VM	Small Outline 8-Pin, DIN EN/IEC60747-5-5 Option	50 Units / Tube
MOC223R2VM	Small Outline 8-Pin, DIN EN/IEC60747-5-5 Option	2500 Units / Tape and Reel
MOCD223M	Small Outline 8-Pin	50 Units / Tube
MOCD223R2M	Small Outline 8-Pin	2500 Units / Tape and Reel
MOCD223VM	Small Outline 8-Pin, DIN EN/IEC60747-5-5 Option	50 Units / Tube
MOCD223R2VM	Small Outline 8-Pin, DIN EN/IEC60747-5-5 Option	2500 Units / Tape and Reel

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

