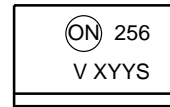


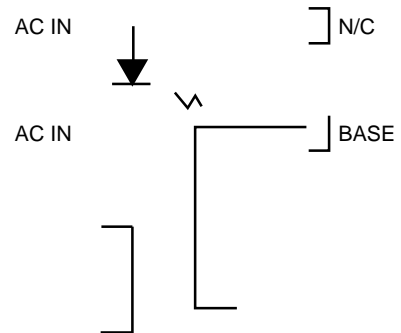
**SOIC8
CASE 751DZ**

MARKING DIAGRAM



- 256 = Device Number
V = DIN EN/IEC60747-5-5 Option (only appears on component ordered with this option)
X = One-Digit Year Code, e.g., "4"
YY = Digit Work Week, Ranging from "01" to "53"
S = Assembly Package Code
-

SCHEMATIC



ORDERING INFORMATION

See detailed ordering and shipping information on page 5 of this data sheet.

MOC256M

SAFETY AND INSULATION RATINGS (As per DIN EN/IEC 60747-5-5, this optocoupler is suitable for “safe electrical insulation” only within the safety limit data. Compliance with the safety ratings shall be ensured by means of protective circuits.)

Parameter		Characteristics
Installation Classifications per DIN VDE 0110/1.89 Table 1, For Rated Mains Voltage	<150 V _{RMS}	I-IV
	<300 V _{RMS}	I-III
Climatic Classification		55/100/21
Pollution Degree (DIN VDE 0110/1.89)		2
Comparative Tracking Index		175

Symbol	Parameter	Value	Unit
V _{PR}	Input-to-Output Test Voltage, Method A, V _{IORM} x 1.6 = V _{PR} , Type and Sample Test with t _m = 10 s, Partial Discharge < 5 pC	904	V _{peak}
	Input-to-Output Test Voltage, Method B, V _{IORM} x 1.875 = V _{PR} , 100% Production Test with t _m = 1 s, Partial Discharge < 5 pC	1060	V _{peak}
V _{IORM}	Maximum Working Insulation Voltage	565	V _{peak}
V _{IOTM}	Highest Allowable Over-Voltage	4000	V _{peak}
	External Creepage	≥4	mm
	External Clearance	≥4	mm
DTI	Distance Through Insulation (Insulation Thickness)		

MOC256M

ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
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EMITTER

V _F	Input Forward Voltage	I _F = ±10 mA	–	1.2	1.5	V
C _{IN}	Input Capacitance	V = 0 V, f = 1 MHz	–	20	–	pF

DETECTOR

I _{CEO1}	Collector–Emitter Dark Current	V _{CE} = 10 V, T _A = 25°C	–	1.0	100	nA
I _{CEO2}		V _{CE} = 10 V, T _A = 100°C	–	1.0	–	μA
I _{CBO}	Collector–Base Dark Current	V _{CB} = 10 V	–	0.2	–	nA
BV _{CEO}	Collector–Emitter Breakdown Voltage	I _C = 10 mA	30	100	–	V
BV _{CBO}	Collector–Base Breakdown Voltage	I _C = 100 μA	70	120	–	V
BV _{ECO}	Emitter–Collector Breakdown Voltage	I _E = 100 μA	5	10	–	V
C _{CE}	Collector–Emitter Capacitance	f = 1.0 MHz, V _{CE} = 0	–	7	–	pF
C _{CB}	Collector–Base Capacitance	f = 1.0 MHz, V _{CB} = 0	–	20	–	pF
C _{EB}	Emitter–Base Capacitance	f = 1.0 MHz, V _{EB} = 0	–	10	–	pF

COUPLED

CTR	Current Transfer Ratio	I _F = ±10 mA, V _{CE} = 10 V	20	150	–	%
	Output–Collector Current Symmetry	$\left(\frac{I_C @ I_F = +10 \text{ mA}, V_{CE} = 10 \text{ V}}{I_C @ I_F = -10 \text{ mA}, V_{CE} = 10 \text{ V}} \right)$	0.5	–	2.0	
V _{CE(SAT)}	Collector–Emitter Saturation Voltage	I _C = 0.5 mA, I _F = ±10 mA	–	0.1	0.4	V

ISOLATION CHARACTERISTICS

V _{ISO}	Input–Output Isolation Voltage	t = 1 Minute	2500	–	–	V _{ACRMS}
C _{ISO}	Isolation Capacitance	V _{I-O} = 0 V, f = 1 MHz	–	0.2	–	pF
R _{ISO}	Isolation Resistance	V _{I-O} = ±500 VDC, T _A = 25°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.

MOC256M

TYPICAL PERFORMANCE CURVES

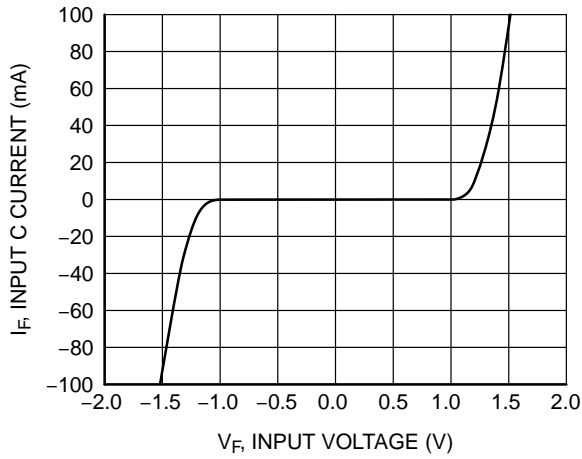


Figure 1. Input Current vs. Input Voltage

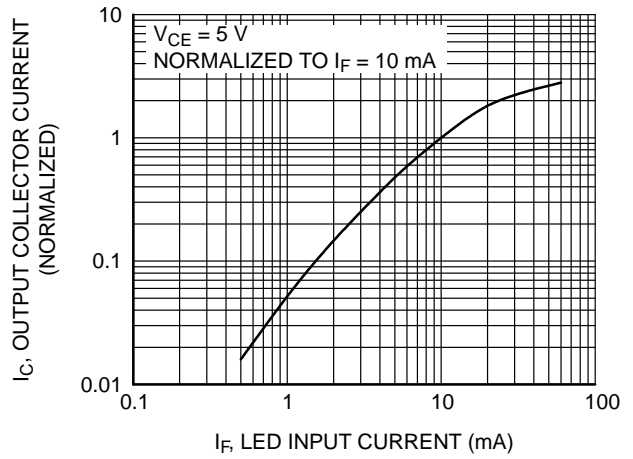


Figure 2. Output Current vs. Input Current

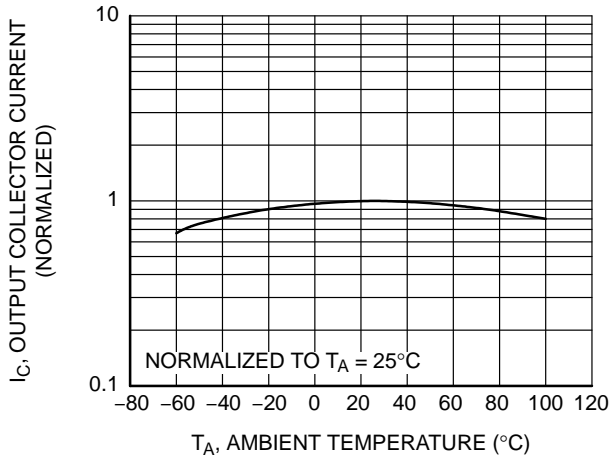


Figure 3. Output Current vs. Ambient Temperature

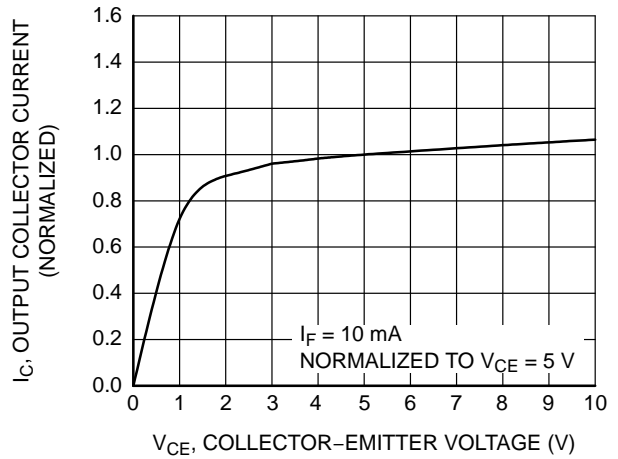


Figure 4. Output Current vs. Collector-Emitter Voltage

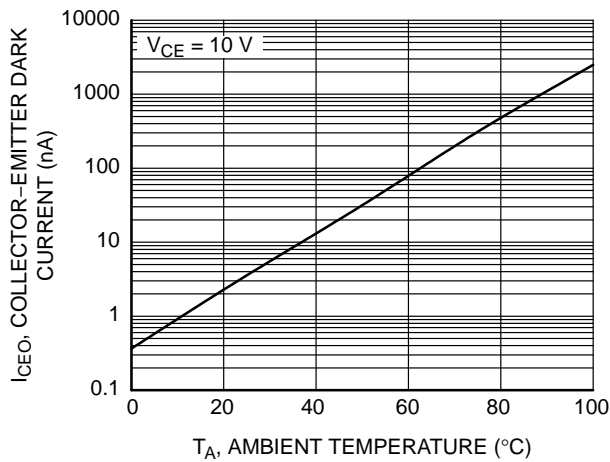
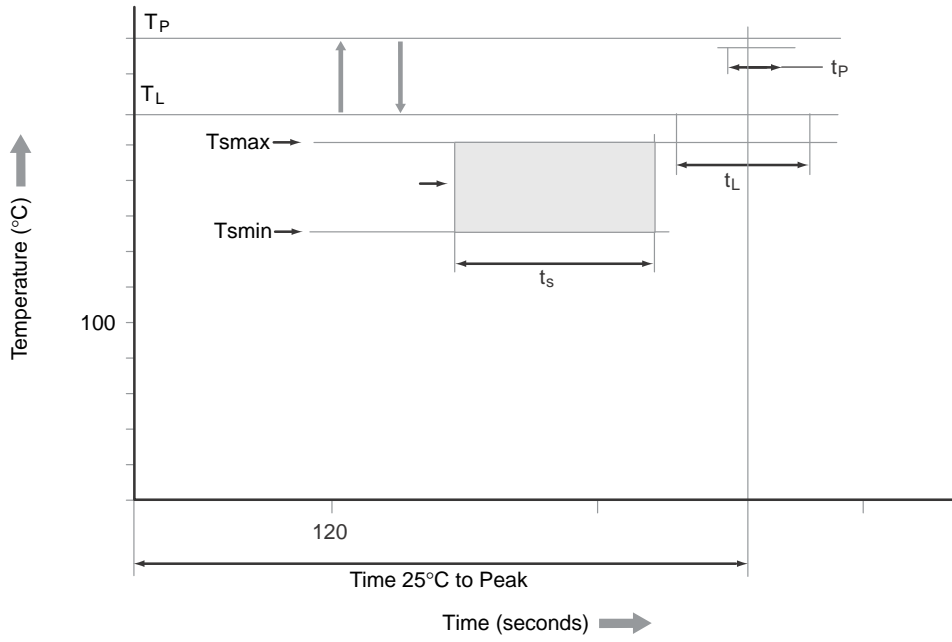


Figure 5. Dark Current vs. Ambient Temperature

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REFLOW PROFILE



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ISSUE O

DATE 30 SEP 2016

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ALL DIMENSIONS

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