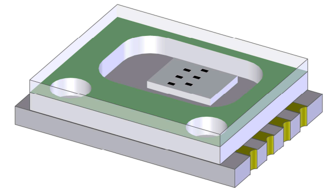
iC-OF BLCC OF3C

OPTO ENCODER PACKAGE SPECIFICATION

ORDERING INFORMATION

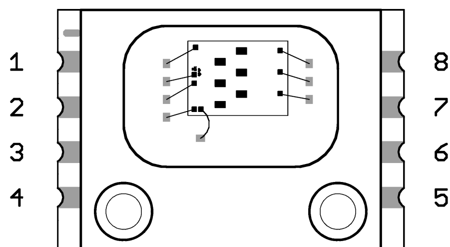
Type	Package	Options	Order Designation
iC-OF	BLCC OF3C	none	iC-OF BLCC OF3C
iC-OF	BLCC OF3C-ET	reticle	iC-OF BLCC OF3C-ET -xxR
iC-OF	BLCC OF3C	reticle	iC-OF BLCC OF3C OF2RZ
iC-OF	BLCC OF3C	Glass Lid	iC-OF BLCC OF3C OF1L
Code Disc 1024 PPR, 18 mm			OF2S 18-1024



9.7 mm x 6.7 mm
RoHS compliant

PIN CONFIGURATION

(top view)



No.	Name	Function
1	VCC1	+ 5 V Supply Voltage
2	NI0	Analog Current Output, Track 0
3	NI1	Analog Current Output, Track 1
4	NI2	Analog Current Output, Track 2
5	GND	Ground
6	S2	Push-Pull Output, Track 2
7	S1	Push-Pull Output, Track 1
8	S0	Push-Pull Output, Track 0

THERMAL DATA

Item	Symbol	Parameter	Conditions	Fig.	Min.	Typ.	Max.	Unit
TG1	Ta	Operating Ambient Temperature Range BLCC OF3C BLCC OF3C-ET			 -20 -40		 90 90	 °C °C
TG2	Ts	Storage Temperature Range			-40		110	°C
TG3	Tpk	Reflow Soldering Peak Temperature	tpk < 20 s, convection reflow (not suitable for vapour phase soldering) TOL (time on label) 8 h; please refer to customer information file No. 7 for details				260	°C
TG4	Rthja	Thermal Resistance Junction to Ambient				250		K/W

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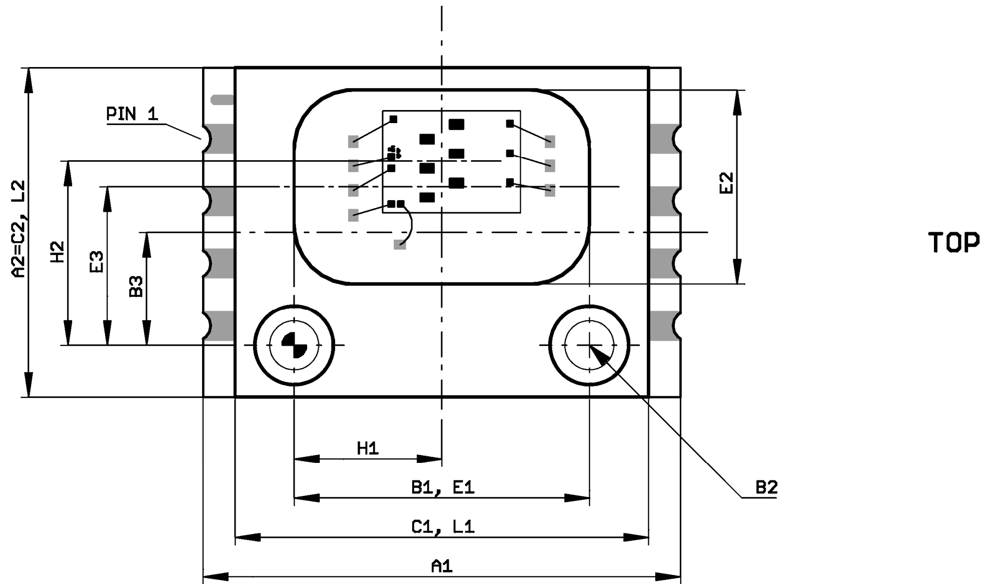
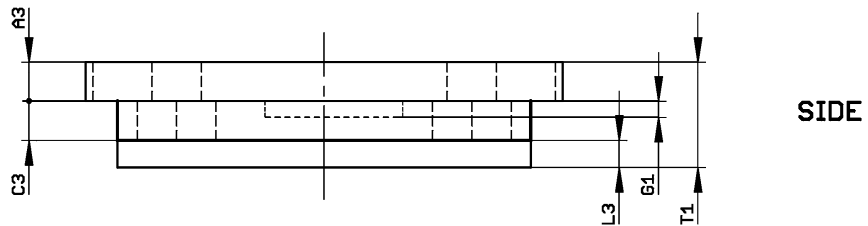
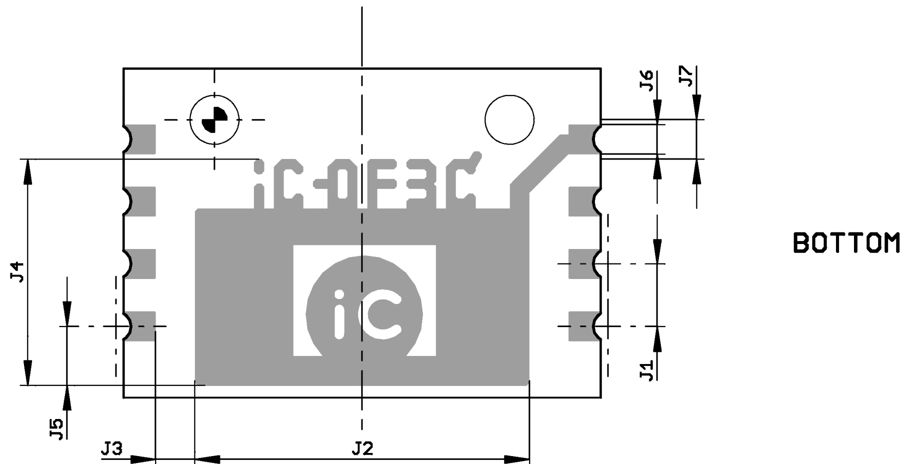
PHYSICAL DIMENSIONS







DRA_OF3C1_PACK_1

DIMENSION TABLE

Item	Parameter	Comments	Min.	Typ.	Max.	Tolerance	Unit
	Substrate and Holes						
A1	Outline X			9.7		±0.15	mm
A2	Outline Y			6.7		±0.1	mm
A3	Substrate Thickness	bottom package to bottom die	0.74	0.8	1.05		mm
B1	Hole Distance			6.0		±0.05	mm
B2	Reference Hole Diameter [1)]	reference hole in substrate only		1.0		+0.1	mm
B3	Distance Reference Hole vs. Center of Package Y			2.3			mm
	Frame Size and Shape						
C1	Frame Outline X			8.4		±0.2	mm
C2	Frame Outline Y	equal to A2					
C3	Frame Thickness		0.67	0.8	0.91		mm
C4	Frame Outlines vs. Reference Hole					±0.25	mm
	Window Size and Shape						
	Window Edge Radius			1.2			mm
E1	Window Size X			6.0		±0.2	mm
E2	Window Size Y			3.95		±0.2	mm
E3	Window Position Y (Center) vs. Reference Hole			3.23			mm
E4	Window Outlines vs. Reference Hole					±0.25	mm
	Chip Placement						
G1	Chip Thickness			0.3			mm
H1	Chip Position vs. Reference Hole X			3.0			mm
H2	Chip Position vs. Reference Hole Y	mid of sensors is chip reference		3.75			mm
H3	Chip Reference vs. Reference Hole					±0.155	mm
H5	Chip Tilt Angle vs. Conductor Image					±1.6	DEG
	Bottom Metal Pattern						
J1	Lead Pitch			1.27		±0.05	mm
J2	Shield Size X			6.8		±0.03	mm
J3	Spacing Pad to Shield			0.8		±0.03	mm
J4	Shield Size Y			4.6		±0.03	mm
J5	Shield Position vs. Leads	with respect to Cu-pattern		1.195		±0.03	mm
J6	Lead Width			0.6		±0.03	mm
J7	Max. Width of Edge Metalization				0.9		mm
J8	Conductor Image Bottom Side vs. Chip Reference					±0.235	mm
J9	Conductor Image Bottom Side vs. Reference Hole					±0.08	mm

Notes:

1) The frame lamination process does not ensure that reference holes remain free of excessive glue

Item	Parameter	Comments	Min.	Typ.	Max.	Tolerance	Unit
	Glass Lid Placement						
L1	Glass Size X			8.4		±0.1	mm
L2	Glass Size Y			6.7		±0.1	mm
L3	Glass/Reticle Thickness	glass lid OF1L reticle OF2RZ or -xxR		0.20 0.55			mm mm
L4	Position Glass Lid vs. Chip					±0.03	mm
	Thickness Specifications						
T1	Overall Thickness	bottom substrate to top of glass bottom substrate to top of reticle	1.59 1.91		2.18 2.56		mm mm

REVISION HISTORY

Rev	Notes	Pages affected
A0	Initial version	
B0	All tolerance specifications revised	all
C1	Complete revision	all
C2	BLCC OF3C-ET implemented; disclaimer update	1, 4
C3	Rthja, disclaimer update	1, 4
C4	RoHS compliance; thermal data: TG3 update; dimension table: item B2 notes; general handling instructions update; disclaimer update	1, 3, 4
D1	update ordering information, dimension table items L3, T1; update form, disclaimer	1, 4

GENERAL HANDLING INSTRUCTIONS

After opening the dry pack, devices must be mounted within 8 hours (in factory conditions of maximum 30 °C / 60 % RH) or must be stored at < 10 % RH. Devices require baking before mounting if the Humidity Indicator Card shows > 10 % when read at 23 °C ± 5 °C or if the conditions mentioned above are not met. Devices may be baked for 72 hours at 100 °C using high temperature device containers (trays).

Samples
Samples may not be subject for dry pack delivery, and, in that case, are not intended for reflow soldering.

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