



FEATURES

- RoHS compliant
- Sub-miniature SIP & DIP styles
- 3kVDC isolation 'Hi Pot Test'
- UL60950 recognised
- Wide temperature performance at full 1 Watt load, -40°C to 85°C
- UL 94V-0 package material
- Footprint at 0.69cm²
- Industry standard pinout
- 3.3V, 5V & 12V inputs
- 3.3V, 5V, 9V, 12V & 15V outputs
- Internal SMD construction
- Fully encapsulated with toroidal magnetics
- MTTF up to 2.4 million hours
- Custom solutions available
- No electrolytic or tantalum capacitors

PRODUCT OVERVIEW

The NKE sub-miniature series of DC-DC Converters is particularly suited to isolating and/or converting DC power rails. A smaller package size, improved efficiency, lower output ripple and 3kVDC isolation capability through state of the art packaging and improved technology. The galvanic isolation allows the device to be configured to provide an isolated negative rail in systems where only positive rails exist. The wide temperature range guarantees startup from -40°C and full 1 watt output at 85°C.

SELECTION GUIDE

Order Code	Nominal Input Voltage	Output Voltage	Output Current	Input Current at Rated Load	Efficiency		Isolation Capacitance	MTTF ¹		Package Style
					%			MIL. kHrs	Tel.	
					Min.	Typ.				
NKE0303DC	3.3	3.3	303	400	68	72	30	4337	46,969	DIP
NKE0305DC	3.3	5	200	400	72	75	35	4105	46,783	
NKE0309DC	3.3	9	111	403	71	74	30	1904	28,918	
NKE0303SC	3.3	3.3	303	400	68	72	30	4337	46,969	SIP
NKE0305SC	3.3	5	200	400	72	75	35	4105	46,783	
NKE0309SC	3.3	9	111	403	71	74	30	1904	28,918	
NKE0503DC	5	3.3	303	270	70	74	40	3710	36,234	DIP
NKE0505DC	5	5	200	289	66	69	28	4277	34,897	
NKE0505DEC	5	5	200	250	73	77	34	2686	35,919	
NKE0509DC	5	9	111	266	72	75	29	3729	76,553	
NKE0512DC	5	12	83	260	73	78	30	2910	73,523	
NKE0515DC	5	15	66	256	74	78	32	2211	71,725	
NKE0503SC	5	3.3	303	270	70	74	40	3710	36,234	SIP
NKE0505SC	5	5	200	289	66	69	28	4277	34,897	
NKE0505SEC	5	5	200	250	73	77	34	2686	35,919	
NKE0509SC	5	9	111	266	72	75	29	3729	76,553	
NKE0512SC	5	12	83	260	73	78	30	2910	73,523	
NKE0515SC	5	15	66	256	74	78	32	2211	71,725	
NKE1205DC	12	5	200	117	68	72	35	3981	58,202	DIP
NKE1209DC	12	9	111	107	72	78	50	3482	57,895	
NKE1212DC	12	12	83	105	73	79	57	1982	77,806	
NKE1215DC	12	15	66	103	76	81	60	2122	56,404	
NKE1205SC	12	5	200	117	68	72	35	3981	58,202	SIP
NKE1209SC	12	9	111	107	72	78	50	3482	57,895	
NKE1212SC	12	12	83	105	73	79	57	1982	77,806	
NKE1215SC	12	15	66	103	76	81	60	2122	56,404	

NKE0505SEC/NKE0505DEC offers higher efficiency than NKE0505SC/NKE0505DC but over a narrower operating temperature range. See temperature characteristics graph.

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage range	Continuous operation, 3.3V input types	2.97	3.3	3.63	V
	Continuous operation, 5V input types	4.5	5.0	5.5	
	Continuous operation, 12V input types	10.8	12.0	13.2	
Reflected ripple current	3.3V input types		40	60	mA p-p



For full details go to www.murata-ps.com/rohs



1. Calculated using MIL-HDBK-217 FN2 and Telcordia SR-332 calculation model with nominal input voltage at full load. All specifications typical at T_A=25°C, nominal input voltage and rated output current unless otherwise specified.