

Model NO.	KEFD2041SR	Model Name	Power Transformers
Part NO.		SIZE	EFD-20 SMD Total 12PIN

Specification and Dimension

Electrical characteristic:

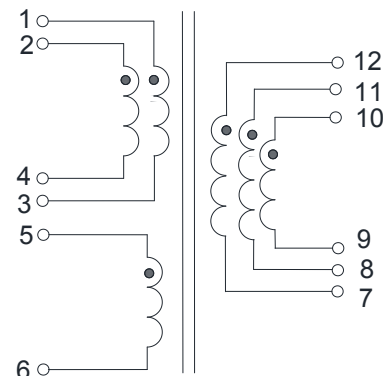
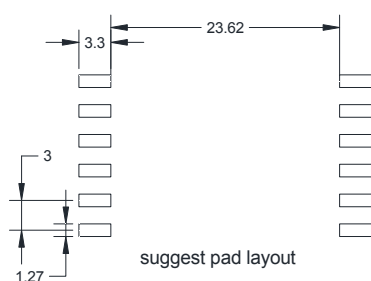
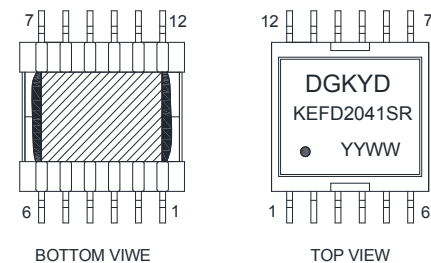
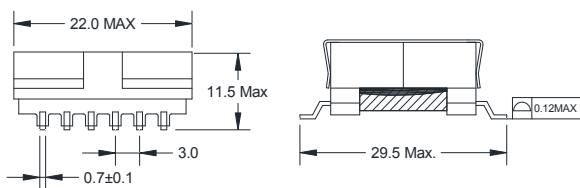
Item	Test Pin	Specifications	Testing Condition	Instruments
1 Inductance	PIN1,2-3,4	20.5uH±5%	Short 100KHz/0.1V	TH-2819
2 Leakage Inductance	pin1,2-3,4	1uH MAX	Other PIN 100KHz/0.1V	TH-2819
3 D.C. Resistance	pin1,2-3,4	39mΩ MAX	AT 25°C	TH-2819
	PIN12,11,10-9,8,7	12mΩ MAX		
	pin5-6	230mΩ MAX		
4 Turns Ration	PIN1,2-3,4: PIN5-6 : PIN12,11,10-9,8,7	2.67:1.17:1±2%	100KHz/0.1V	TH-2819
5 HI-POT	PRI TO SEC	1500VAC	2Seconds/1mA	ZX-9310

Operating Temperature : -40°C to +125°C, Storage temperature range:-40~+125°C

Dimension: (Unit: mm)

Unless otherwise specified ,all tolerances are ±0.25 mm)

SCHEMATICS



Remark

terminals 1+2,3+4,7+8+9 and 10+11+12 must be tied as solder bridging is allowed.

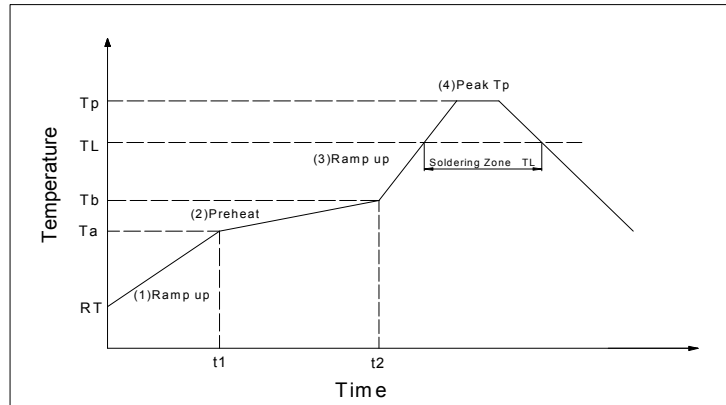
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Construction & Winding Method	Material Certificate List

ITEM	ATERIAL	RATING	TYPE	MANUFACTURER	UL NO.	
1	BOBBIN	L.C.P	94 - V0	E-4008	SUMITOMO CHEMICAL CO LTD	E54705
2	WIRE	POLYURETHANE ENAMELLED COPPER WIRE	155°C	TYPJU-155 UEW	TA YA ELECTRIC WIRE & CABLE CO LTD OR EQUIVALENT DONGGUAN HUA CHANG CONDUCTOR CO LTD OR EQUIVALENT	E84201 E204322
3	TAPE	POLYESTER FILM	180°C	#74	3M ELECTRICAL PRODUCTS OR EQUIVALENT	E17385
4	CORE	FERRITE CORE			ACME OR SIEMENS OR EQUIVALENT	
5	EPOXY	EPOXY		S9001-6	WELLS ELECTRONIC MATERIAL OR EQUIVALENT	
6	MARKING	INK			Marabuwerke GmbH & Co.,KG	
7	TERMINAL	PHOSPHOR BRONZE TIN			WELL FORE SPECIAL WIRE CORPORATION	
8	SOLDER	Sn		Sn-0.7Cu	YIK SHING TAT INDUSTRIAL CO., LTD OR EQUIVALENT	

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IR reflow graph



IR reflow profile

Form-1 (Reference JEDEC J-STD-020C Table 5-2)

IR reflow profile		Sn-Pb	Pb-free
step#	Profile Feature	Condition/Duration	Condition/Duration
step1	Ramp-up rate	1.5-3°C/sec.	1.5-3°C/sec.
step2	Preheat : 100~150°C(Ta-Tb)	t1-t2 : 60~120 sec.	t1-t2 : 60~180 sec.
step3	Ramp-up rate(T _L to T _P)	1.5-3°C/sec.	1.5-3°C/sec.
	Temperature maintained above 183°C(T _L)	T _L : 60-150sec.	T _L : 80-150sec.
step4	Peak temperature(T _P)	230+5/-10°C	260+0/-5°C
	Time within 5°C of actual peak temperature	30±10 sec.	30±10 sec.
step5	Ramp-down rate	6°C/sec.Max	6°C/sec.Max
Note1	Subject the samples to 3 cycles of the above defined reflow conditions		Subject the samples to 3 cycles of the above defined reflow conditions
Note2	Time 25°C to peak temperature : 6 minutes max.		Time 25°C to peak temperature : 8 minutes max.
Note3			The time between reflows shall be 5 minutes minimum and 60minutes maximum

SnPb Eutectic Process- "Package Peak Reflow Temperature"

Form-2 (Reference JEDEC J-STD-020C Table 4-1)

产品厚度	产品体积 < 350mm ³	产品体积 ≥ 350mm ³
< 2.5mm	240 +0/-5°C	225 +0/-5°C
≥ 2.5mm	225 +0/-5°C	225 +0/-5°C

Pb-free Process - "Package Peak Reflow Temperature"

Form-3 (Reference JEDEC J-STD-020C Table 4-2)

产品厚度	产品体积 < 350mm ³	产品体积 350mm ³ -2000mm ³	产品体积 > 2000mm ³
< 1.6mm	260 +0/-5°C	260 +0/-5°C	260 +0/-5°C
1.6mm-2.5mm	260 +0/-5°C	250 +0/-5°C	245 +0/-5°C
> 2.5mm	250 +0/-5°C	245 +0/-5°C	245 +0/-5°C