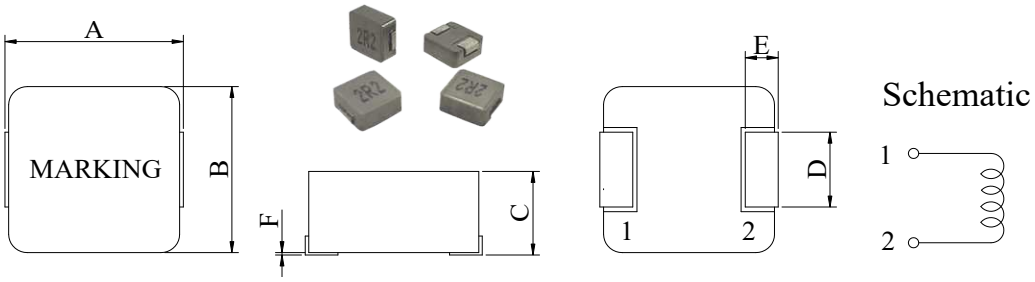
TOKO FDSD0630 alternatives

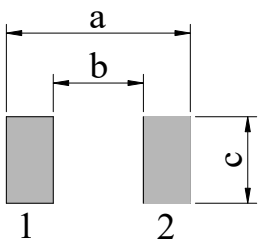
SMD Shielded Power Inductor

TOKO / Murata P.N.		BEC alternative	Inductance (µH)	DC Resistance mΩ)		DC Saturation Current (A)		Heat Rating Current (A)	
				Typ.	Max.	I sat Typ.	I sat Max.	I rms Typ.	I rms Max.
FDSD0630-H-R68M	>	BEC-PMG63T-681MT	0.68	4.7	5.3	17	15	16	14.5
FDSD0630-H-1R0M	>	BEC-PMG63T-102MT	1.00	6.7	7.4	15	13.5	12	11
FDSD0630-H-1R5N	>	BEC-PMG63T-152MT	1.50	10.2	12	14	12	10	9
FDSD0630-H-2R2M	>	BEC-PMG63T-222MT	2.20	13.5	15	10	9	8	7.5
FDSD0630-H-3R3M	>	BEC-PMG63T-332MT	3.30	19	22	9.5	8.5	6.5	6
FDSD0630-H-4R7M	>	BEC-PMG63T-472MT	4.70	28	33	6.5	5.5	5.5	5
FDSD0630-H-5R6M	>	BEC-PMG63T-562MT	5.60	39	42	6	5.2	5.5	5
FDSD0630-H-6R8M	>	BEC-PMG63T-682MT	6.80	43	50	6	5	4.5	4.2
FDSD0630-H-8R2M	>	BEC-PMG63T-822MT	8.20	54	60	6	4.7	4.5	4
FDSD0630-H-100M	>	BEC-PMG63T-103MT	10.00	62	68	5.5	4.5	4	3.5

Dimensions & Shape : [mm]



PAD LAYOUT



A	B	C	D	E	F	a	b	c
7.3±0.3	6.6±0.3	3.0 Max.	3.0±0.3	1.6±0.3	0 ~ 0.15 typ.	8.0	3.7	3.4

Note:

1. Marking : Inductance value and Date code.
2. The above PCB layout reference only, and recommend solder paste thickness at 0.15mm and above.

Product Identification :

PMG	63T	-	332	M	T
Series name	External dimension L x W x T [mm]		Inductance Value	Inductance Tolerance	Packing

Series name: Molding Type Iron Powder High Current Power Inductor

External dimension L x W x T [mm]

Code	Dimension
63	7.3x6.6x3.0
T	Internal code

Inductance Value

Code	Inductance value
221	0.22 µH
332	3.3 µH
473	47 µH
104	100 µH

Inductance Tolerance

Code	Tolerance
J	±5%
K	±10%
L	±15%
M	±20%

Packing

T ⇨ Tape & Reel
B ⇨ Bulk with Trays

- Operating temperature: -40℃ ～ +125℃(including coil's self temperature rise).
- Storage temperature: -40℃ ～ +125℃.
- RoHS, REACH compliant, Haloger free available.

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TOKO FDSD0630 alternatives

Full Inductance Range: 0.15 ~ 33.0 μH

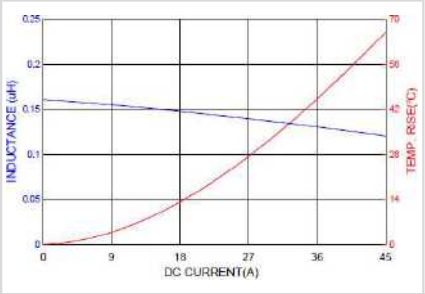
Electronial Characteristics :

TOKO / Murata P.N.		BEC alternative	Inductance (μH) ① (μH) ①	DC Resistance (mΩ)		DC Saturation Current ②		Heat Rating Current ③	
				Typ.	Max.	I sat (A) Typ.	I sat (A) Max.	I rms (A) Typ.	I rms (A) Max.
		BEC-PMG63T-151NT	0.15 ± 30%	1.7	2.1	40	36	30	25
		BEC-PMG63T-221MT	0.22 ± 20%	2	2.5	34	32	23	21
		BEC-PMG63T-331MT	0.33 ± 20%	2.8	3.4	25	22	21	20
		BEC-PMG63T-361MT	0.36 ± 20%	3.3	3.9	24	21	20	18
		PMG63T-471MT	0.47 ± 20%	3.4	4	20	18	18	16
		BEC-PMG63T-561MT	0.56 ± 20%	3.9	4.5	18	16	16.5	15
FDSD0630-H-R68M	>	BEC-PMG63T-681MT	0.68 ± 20%	4.7	5.3	17	15	16	14.5
		BEC-PMG63T-821MT	0.82 ± 20%	5.4	6	16	14	14	13
FDSD0630-H-1R0M	>	BEC-PMG63T-102MT	1.0 ± 20%	6.7	7.4	15	13.5	12	11
		BEC-PMG63T-122MT	1.2 ± 20%	7.7	10	14	12.5	10	9.5
FDSD0630-H-1R5N	>	BEC- PMG63T-152MT	1.5 ± 20%	10.2	12	14	12	10	9
		BEC-PMG63T-182MT	1.8 ± 20%	10.9	13	12	10	9	8
FDSD0630-H-2R2M	>	BEC-PMG63T-222MT	2.2 ± 20%	13.5	15	10	9	8	7.5
		BEC-PMG63T-272MT	2.7 ± 20%	17.3	20	9.8	8.8	7.2	7
FDSD0630-H-3R3M	>	BEC-PMG63T-332MT	3.3 ± 20%	19	22	9.5	8.5	6.5	6
FDSD0630-H-4R7M	>	BEC-PMG63T-472MT	4.7 ± 20%	28	33	6.5	5.5	5.5	5
FDSD0630-H-5R6M	>	BEC-PMG63T-562MT	5.6 ± 20%	39	42	6	5.2	5.5	5
FDSD0630-H-6R8M	>	BEC-PMG63T-682MT	6.8 ± 20%	43	50	6	5	4.5	4.2
FDSD0630-H-8R2M	>	BEC-PMG63T-822MT	8.2 ± 20%	54	60	6	4.7	4.5	4
FDSD0630-H-100M	>	BEC-PMG63T-103MT	10.0 ± 20%	62	68	5.5	4.5	4	3.5
		BEC-PMG63T-153MT	15.0 ± 20%	110	140	4.5	4	3	2.5
		BEC-PMG63T-223MT	22.0 ± 20%	150	190	3	2.5	2.5	2
		BEC-PMG63T-333MT	33.0 ± 20%	215	258	2.5	2	2.1	1.8

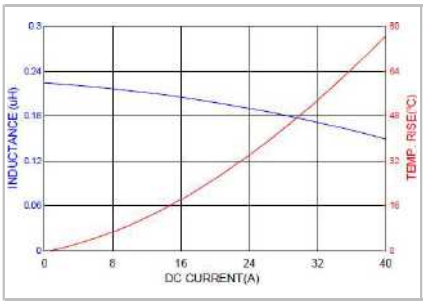
1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Saturation current (Isat) : DC current at which the inductance drops approximately 30% from its value without current.
3. Heat rating current (Irms): DC current that causes the temperature rise(Δt=40℃) from 25℃ ambient.
4. The part temperature (ambient + temperature rise) should not exceed 125℃under worst case.
5. All test data referenced to 25℃ ambient, unless otherwise specified.
6. Rated current: Isat or Irms, whichever is smaller.

Typical Performance Curves:

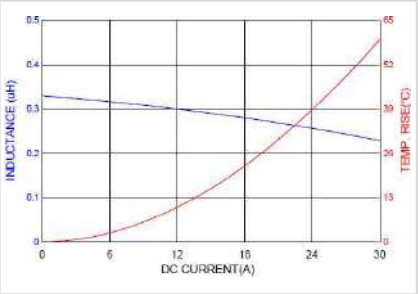
PMG63T-151N



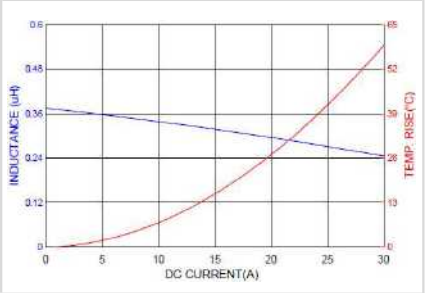
PMG63T-221N



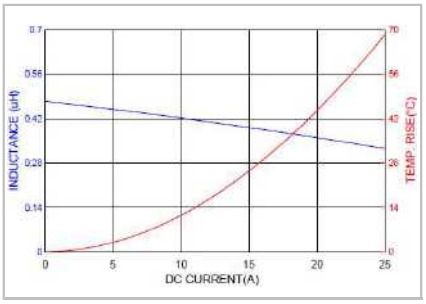
PMG63T-331M



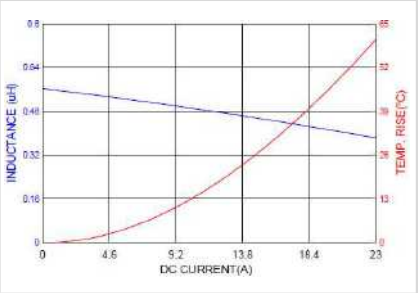
PMG63T-361M



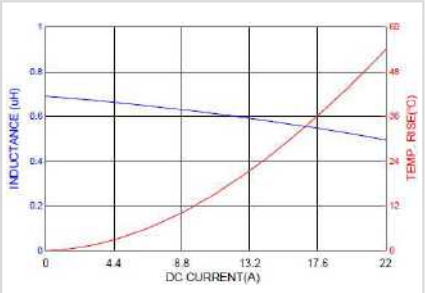
PMG63T-471M



PMG63T-561M



PMG63T-681M



PMG63T-821M

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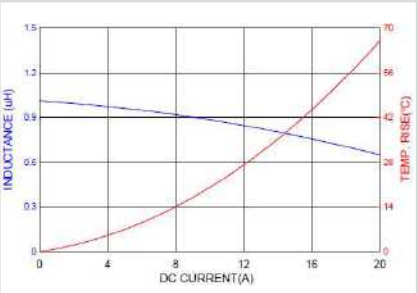
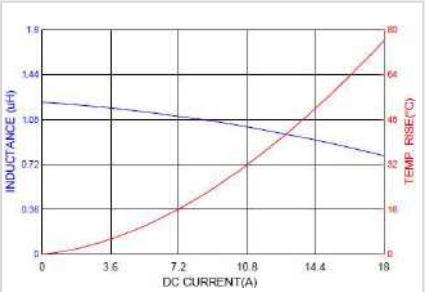
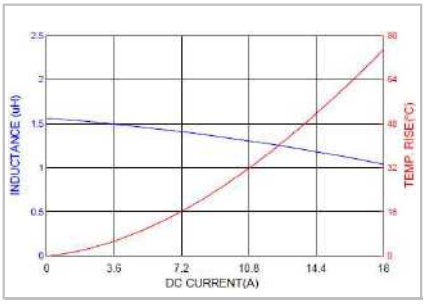
PMG63T-102M



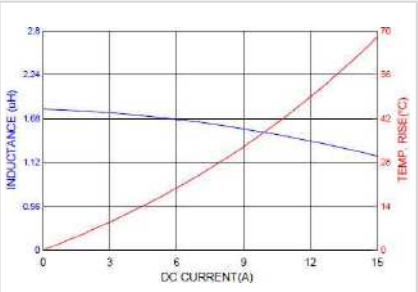
PMG63T-122M



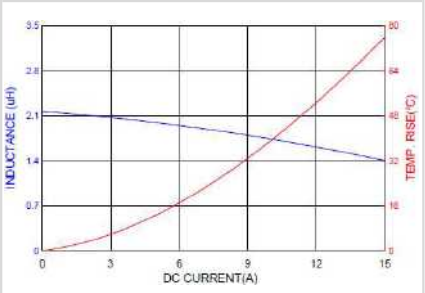
PMG63T-152M



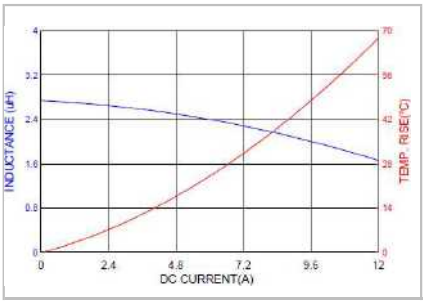
PMG63T-182M



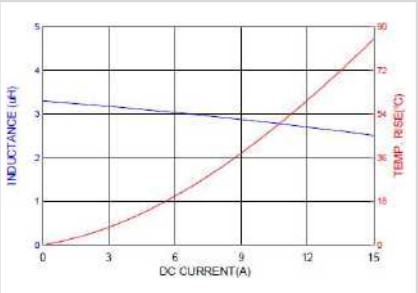
PMG63T-222M



PMFG63T-272M



PMG63T-332M



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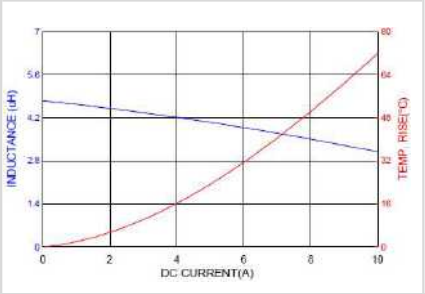
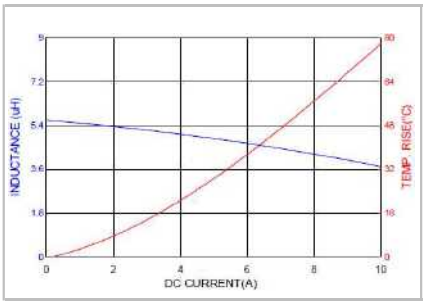
Typical Performance Curves:

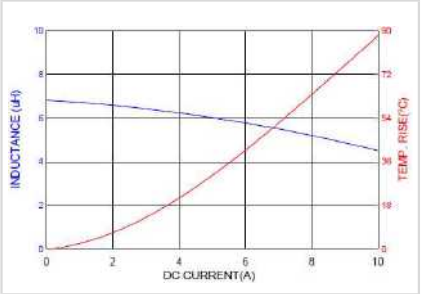
PMG63T-472M



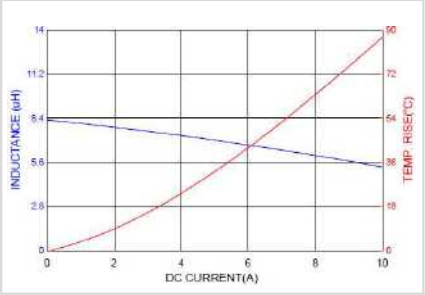
PMG63T-562M



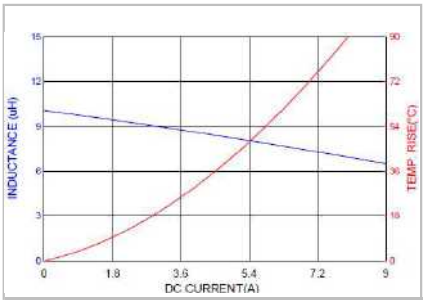
PMG63T-682M



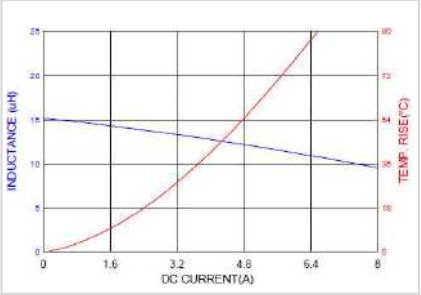
PMG63T-822M



PMG63T-103M



PMF63T-153M



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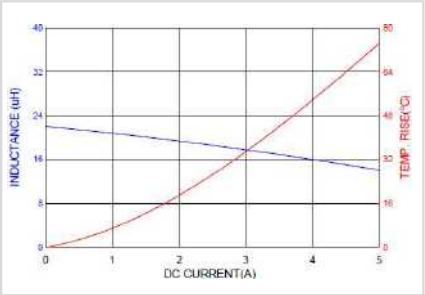
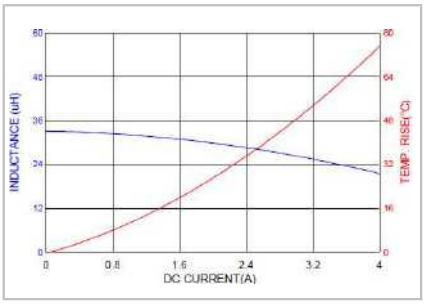
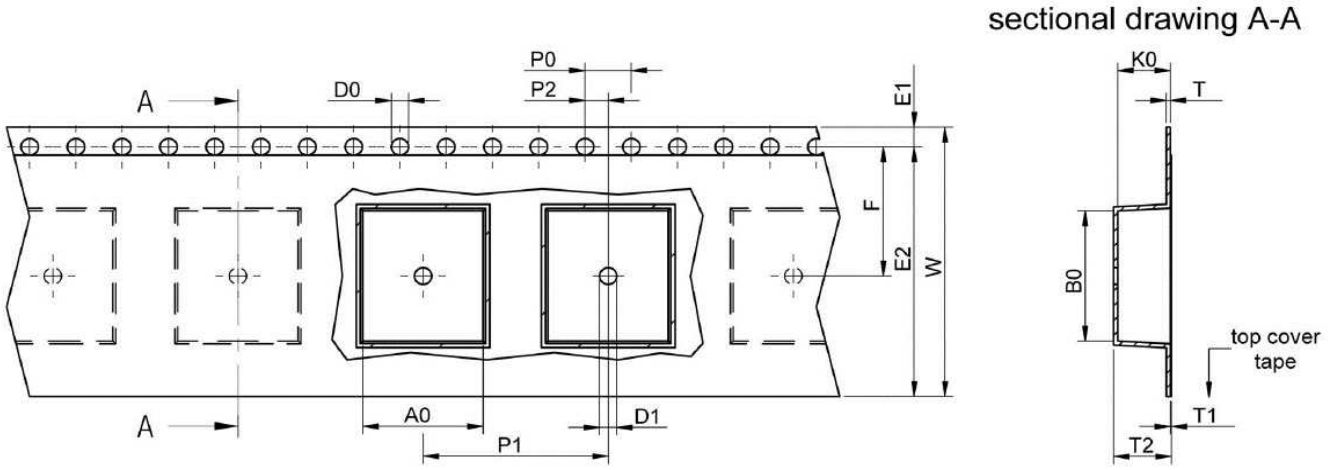


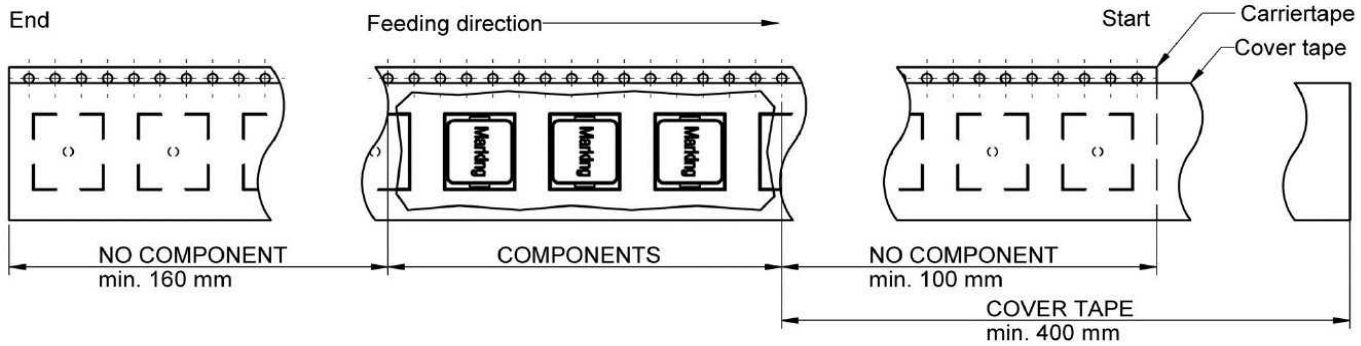
PMG63T-333M

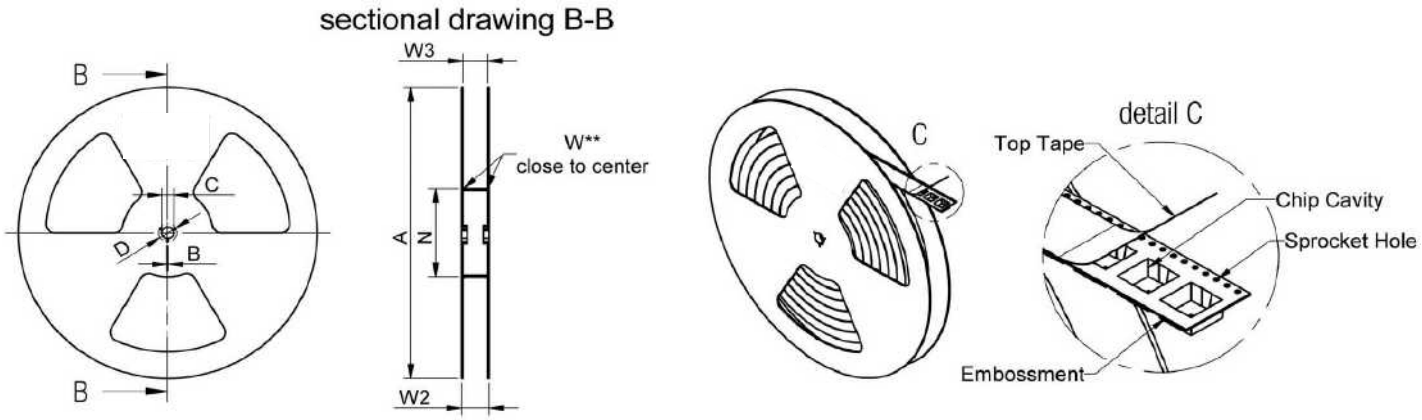


Packaging Specification - Tape and Reel [mm]:



Tolerance / Size	A0	B0	W	P1	T	T1	T2	K0	D0	D1	E1	E2	F	P0	P2	Tape	Packaging unit
	typ.	typ.	±0.3	±0.1	max.	min.	ref.	typ.	+0.1	min.	±0.1	min.	±0.1	±0.1	±0.1		PCS
PMG63T	7.0	7.5	16.0	12.0	0.4	0.1	3.4	3.2	1.5	1.5	1.75	14.2	7.5	4.0	2.0	Ploystyrene	1000



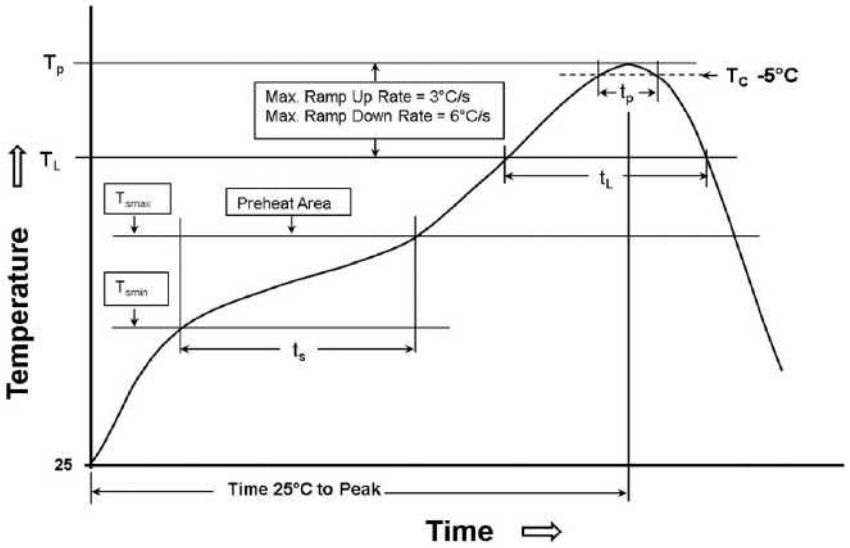


PMG63T Tape width	A	B	C	D	N	W2	W3
W = 16 mm	330	1.50 min.	13.0 ± 1.0	21.0 ± 0.8	100	20.0 ± 2.0	16.0 ± 0.5

Recommend Soldering Specifications:

Classification Reflow Profile for SMT components:

Classification Reflow Profile :



Profile Feature	Pb-Free Assembly
Preheat - Tempearature Min(T_{smin}) - Tempearature Max(T_{smax}) - Time(T_s) from(T_{smin} to T_{smax})	 150℃ 200℃ 60-120 seconds
Ramp-up rate ($T_L$to T_P)	3℃ / second max.
Liquidous temperature (T_L) Time(t_L) maintained above T_L	217℃ 60-150 seconds
Time within 5℃ of actual peak temperature (t_P)	20-30 seconds
Ramp-downrate(TptoTL)	6℃ / second max.
Time 25℃ to peak temperature	8 minutes max.

Pack Classification Reflow Temperature :

	Package Thickness	Volume (mm^3) < 350	Volume (mm^3) 350-2000	Volume (mm^3) > 2000
Pb-Free Assembly	< 1.6 mm	260 ℃	260 ℃	260 ℃
Pb-Free Assembly	1.6 mm - 2.5mm	260 ℃	250 ℃	245 ℃
Pb-Free Assembly	≥ 2.5 mm	260 ℃	245 ℃	245 ℃