

KLFM07540-U

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KLFM07540-U

0.75A Surface Mount Low Leakage Schottky Barrier Rectifier 40V

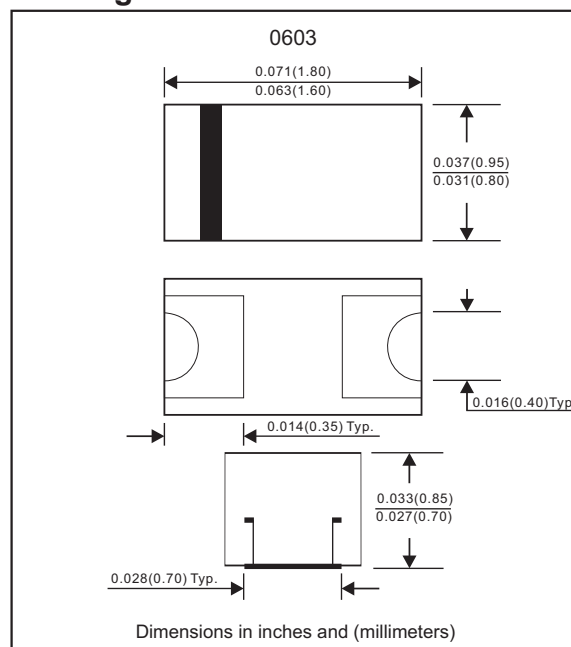
Features

- Dual Flat No-lead
Small body outline dimensions
- Low leakage current
- Suffix "-H" indicates Halogen free part, ex. KLFM07540-U-H

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case: Molded plastic, 0603
- Terminals: Golden Plated terminals,
solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Mounting Position: Any
- Weight: Approximated 0.003gram

Package outline



Maximum ratings (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Repetitive peak reverse voltage		V _{RRM}			40	V
Average forward rectified current		I _O			0.75	A
Forward surge current	Non-repetitive peak forward surge current at t=8.3ms	I _{FSM}			3.0	A
Operating junction temperature range		T _J	-55		+125	°C
Storage temperature range		T _{STG}	-55		+125	°C

Electrical characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward voltage	I _F =10mA DC I _F =100mA DC I _F =200mA DC I _F =750mA DC	V _F		0.29 0.37 0.41 0.55	0.4 0.7	V
Reverse current	V _R =30V, T _J =25°C	I _R			10	μA
Diode junction capacitance	f=1MHz and applied 10V DC reverse voltage	C _D		17	20	pF

Rating and characteristic curves (KLFM07540-U)

FIG.1- FORWARD CHARACTERISTICS

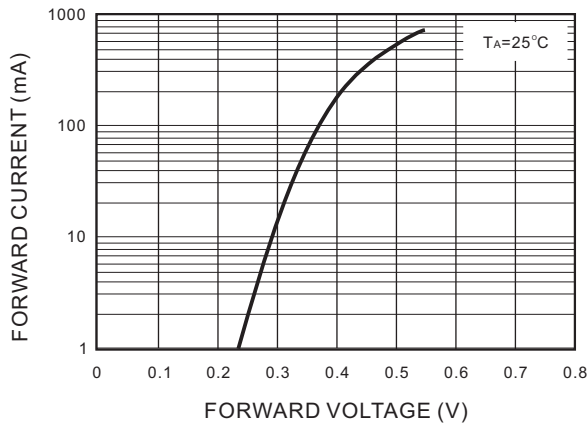


FIG.2- REVERSE CHARACTERISTICS

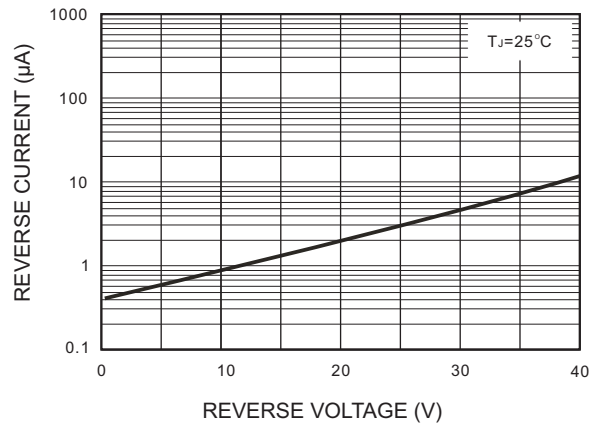


FIG.3- TERMINALS CHARACTERISTICS

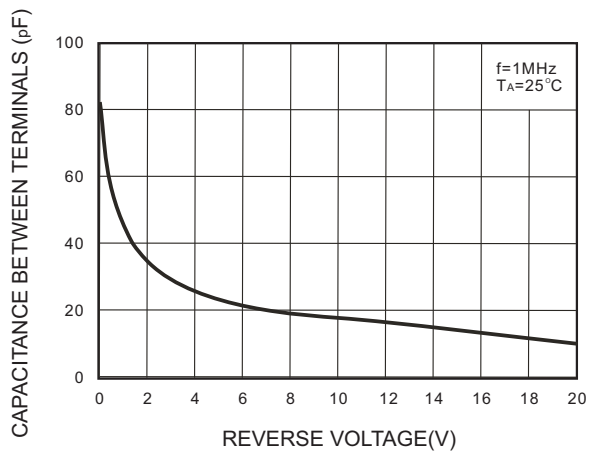
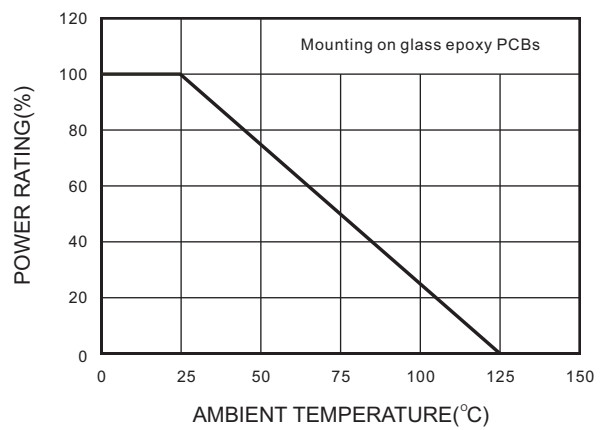


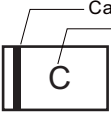
FIG.4- POWER RATING DERATING CURVE

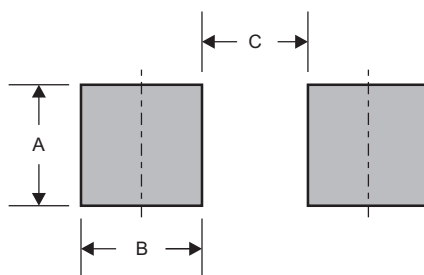


KLFM07540-U**Pinning information**

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example
KLFM07540-U	C	

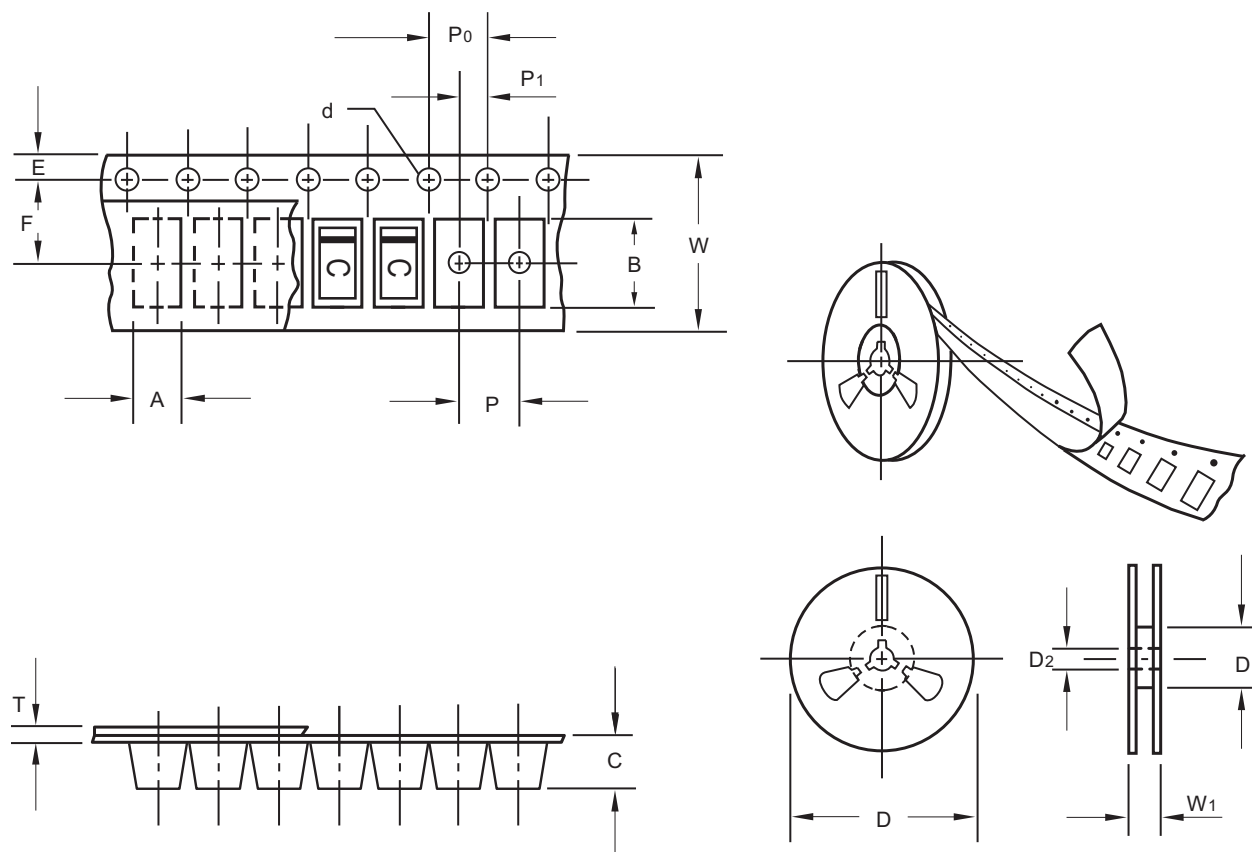
Suggested solder pad layout

Dimensions in inches and (millimeters)

PACKAGE	A	B	C
0603	0.032 (0.80)	0.028 (0.70)	0.036 (0.90)

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Packing information



unit:mm

Item	Symbol	Tolerance	0603
Carrier width	A	0.1	1.00
Carrier length	B	0.1	1.85
Carrier depth	C	0.1	1.00
Sprocket hole	d	0.1	1.50
13" Reel outside diameter	D	2.0	-
13" Reel inner diameter	D1	min	-
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	min	62.00
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.05	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.05	2.00
Overall tape thickness	T	0.1	0.23
Tape width	W	0.1	8.00
Reel width	W1	1.0	11.40

Note: Devices are packed in accordance with EIA standard 481-D and specifications listed above.

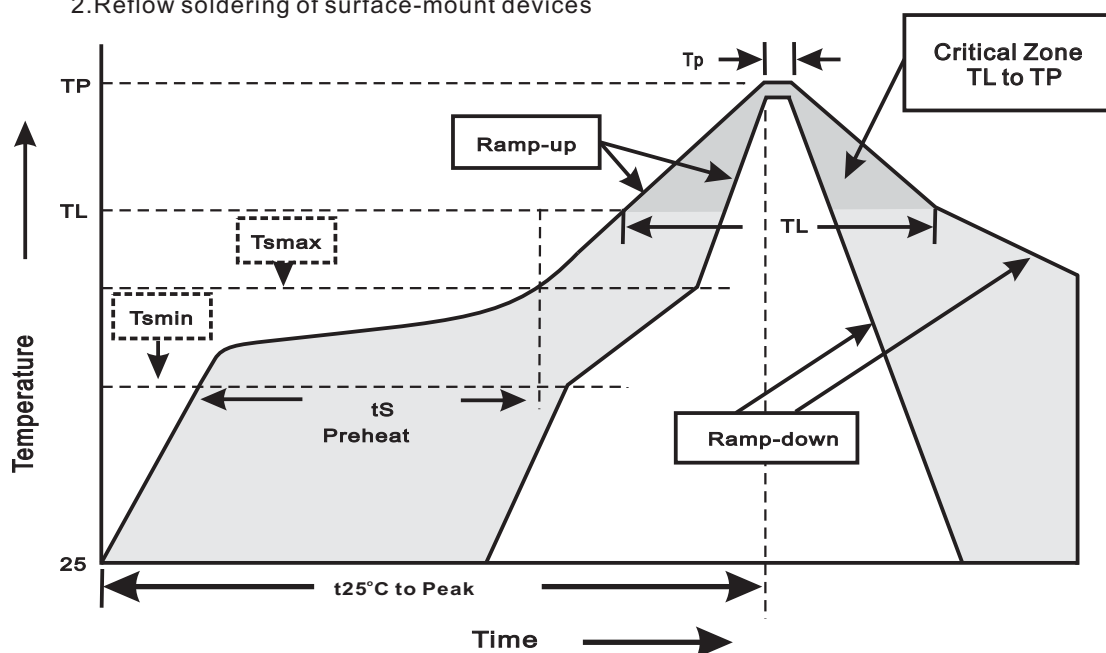
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Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
0603	7"	4,000	4.0	40,000	183*123*183	178	382*257*387	320,000	8.8

Suggested thermal profiles for soldering processes

- 1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%
- 2.Reflow soldering of surface-mount devices



3.Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(T _L to T _P)	<3°C/sec
Preheat -Temperature Min(T _{min}) -Temperature Max(T _{max}) -Time(min to max)(t _s)	150°C 200°C 60~120sec
T _{max} to T _L -Ramp-upRate	<3°C/sec
Time maintained above: -Temperature(T _L) -Time(t _L)	217°C 60~260sec
Peak Temperature(T _P)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(t _P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes