SunLED
www.SunLED.com

Part Number: **ZFMDK20A-A**

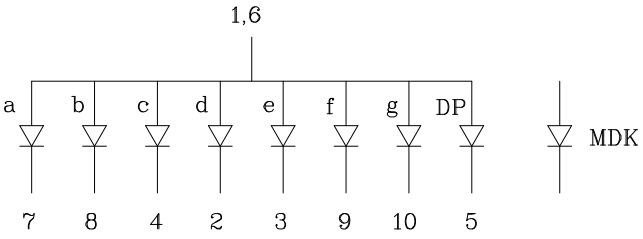
SURFACE MOUNT DISPLAY

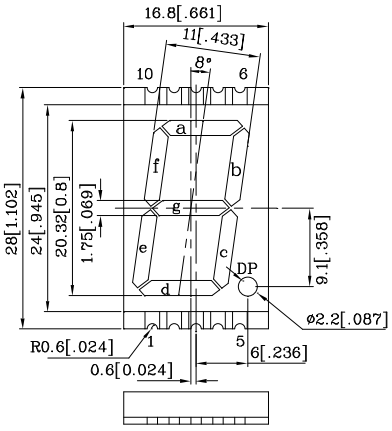
PRELIMINARY SPEC

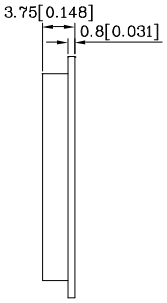
Features

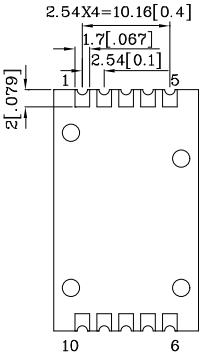
- 0.8 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- I.C. COMPATIBLE.
- MECHANICALLY RUGGED.
- GRAY FACE,WHITE SEGMENT.
- PACKAGE : 200PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.











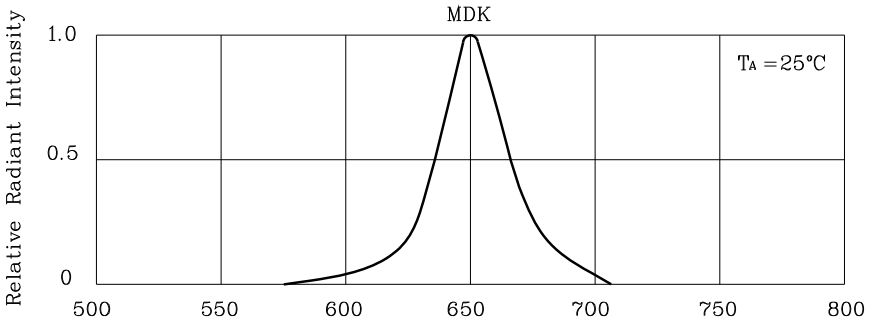
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.
3. The gap between the reflector and PCB shall not exceed 0.25mm.
4.Specifications are subject to change without notice.

Absolute Maximum Ratings (TA=25°C)		**MDK (InGaAlP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	185	mA
Power Dissipation	P_T	75	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

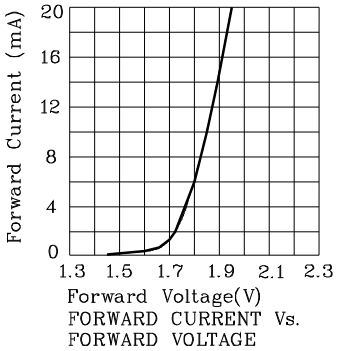
Operating Characteristics (T_A=25°C)		**MDK (InGaAlP)**	**Unit**
Forward Voltage (Typ.) (I_F=10mA)	V_F	1.85	V
Forward Voltage (Max.) (I_F=10mA)	V_F	2.5	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (Typ.) (I_F=10mA)	λ P	650	nm
Wavelength of Dominant Emission (Typ.) (I_F=10mA)	λ D	635	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	Δλ	28	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	35	pF

Part Number	Emitting Color	Emitting Material	Luminous Intensity (IF=10mA) ucd		Wavelength nm λ P	Description
			min.	typ.		
ZFMDK20A-A	Red	InGaAlP	18000	60990	650	Common Anode. Rt. Hand Decimal

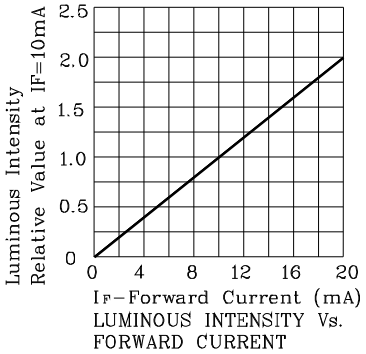


RELATIVE INTENSITY Vs. WAVELENGTH

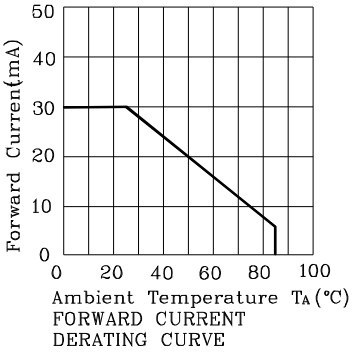
❖ MDK



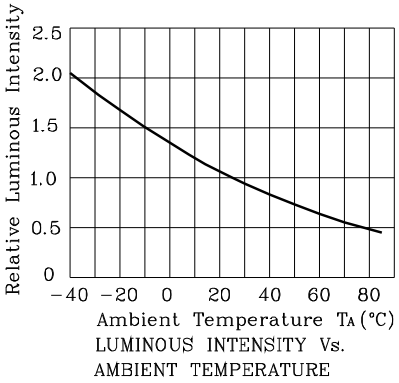
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

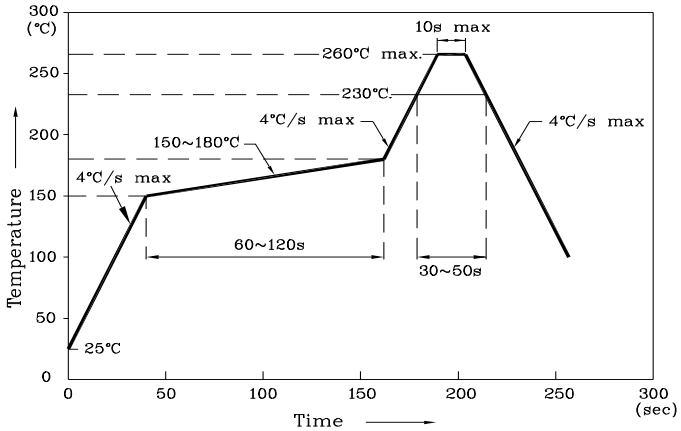
Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

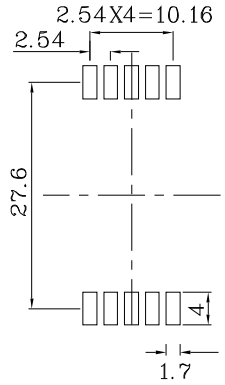
Note: Accuracy may depend on the sorting parameters.

Reflow Soldering Profile For Lead-free SMT Process.

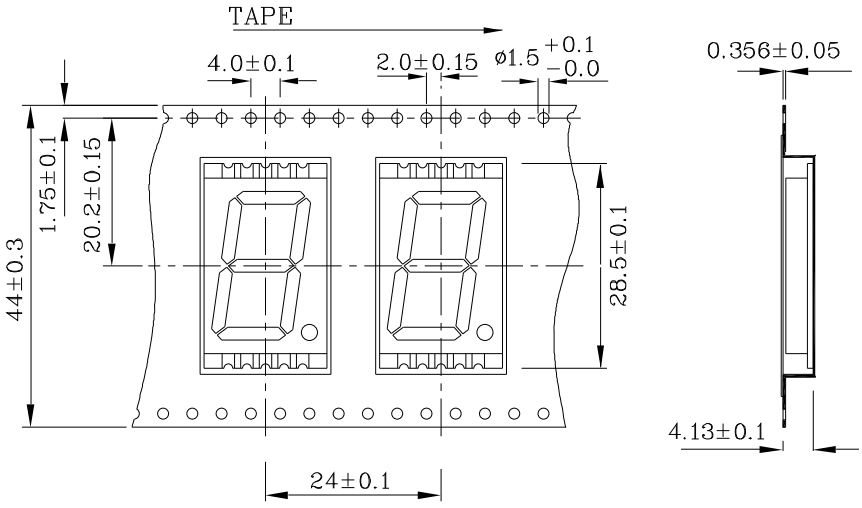


Notes:
1. Maximum soldering temperature should not exceed 260℃.
2. Recommended reflow temperature: 145℃-260℃.
3. Do not put stress to the epoxy resin during high temperatures conditions.

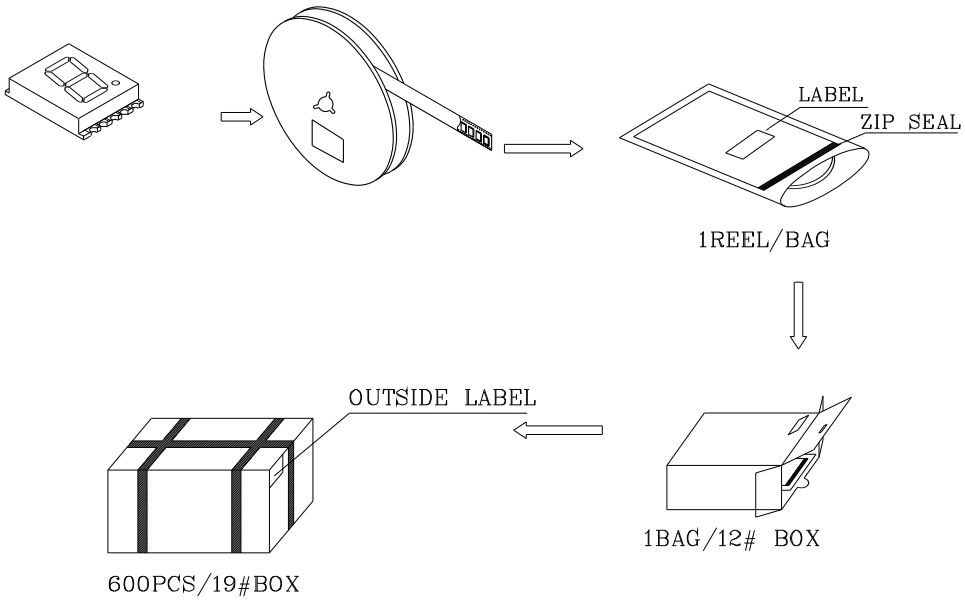
❖ Recommended Soldering Pattern (Units : mm;Tolerance:± 0.15)



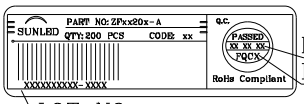
❖ Tape Specification (Units : mm)



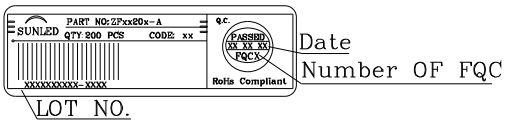
PACKING & LABEL SPECIFICATIONS **ZFMDK20A-A**



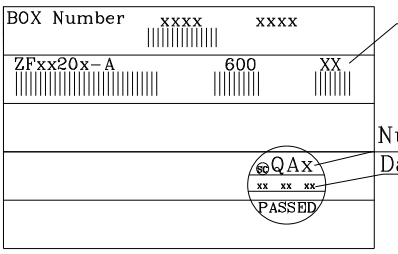
Inside LABEL Paste On The TAPE



Outside LABEL Paste On The BAG



Outside LABEL Paste On The 19#Box



Outside LABEL Paste On The 12#Box

