BR431RMQ
Rev.A Jun.-2022

@ *f* Parameter	… Z Symbol	*f* › Rating	% y Unit
Cathode to Anode Voltage	V_{KA}	37	V
Cathode Current Range, Continuous	I_K	-100 +100	mA
Reference Input Current Range, Continuous	I_{REF}	0.05 +10	mA
Power Dissipation	P_D	370	mW
Operating Ambient Temperature	T_{amb}	-40 125	
Junction Temperature	T_j	160	
Storage Temperature Range	T_{stg}	-65 150	

@ *f* Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Reference Input voltage	V_{REF}	$V_{KA}=V_{REF}$ I_K=10mA(A=0.4%)	2.490	2.500	2.510	V
		$V_{KA}=V_{REF}$ I_K=10mA(B=0.8%)	2.480	2.500	2.520	V
Deviation of Reference Input Voltage Over-Temperature	¸ V_{REF}/T	$V_{KA}=V_{REF}$ I_K=10mA T_A=-25 85		4.5	17	mV
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage	¸ V_{REF}/ ¸ V_{KA}	I_K=10mA ¸ V_{KA} =10V to V_{REF}		-1	-2.7	mV/V
		I_K=10mA ¸ V_{KA} =36V to 10V		-0.45	-2.0	mV/V
Reference Input current	I_{REF}	I_K=10mA R_1=10 R_2=open		1.0	4.0	A
Deviation of Reference Input Current Over Full Temperature Range	¸ I_{REF}/T	I_K=10mA R_1=10K , R_2=open T_A=-40 125		0.4	1.2	A
Minimum Cathode Current for Regulation						

Ô ? d • Ž ¢ / Electrical Characteristic Curve

Ø ¤ =) ¢ / Package Dimensions

, M y ƒ / Marking Instructions

Q431R

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Note:

Q: Automobile halogen-free product Code

431: Product Type

R: It represents the opposite arrangement of R and K to BR431M

š WD t ... • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½200 - k ž • 60 ½120sec;

2o• Q › “ † 255 r 5 - k ž • 4 Ò 5 r 0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~200 - , Time:60~120sec.

2.Peak Temp.:255 r 5 - , Duration:5 r 0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r 5 - ž • y 10 r 1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packing SPEC.

2 & x / REEL