

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 i Ú ^ Test Conditions	Â 4 > Min	Á ° > 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

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

šWD t...•Ž¢ (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

^a¢y

Note:

1o• Ä½ “† 150 ½200 - k ž • 60 ½120sec;

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

2o• Q›“† 255 r5 - k ž • 4 Ò 5 r0.5sec;

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

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

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

“†y 260 r5 -

ž•y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging S.EC.

2 & x / REF