





Precision Voltage Reference

FEATURES

J Y f m ' <] [\ ' 5 WWi f U Wm. ' Ž & 91 hfYaY`m'@ck'8f]Zh. . \$

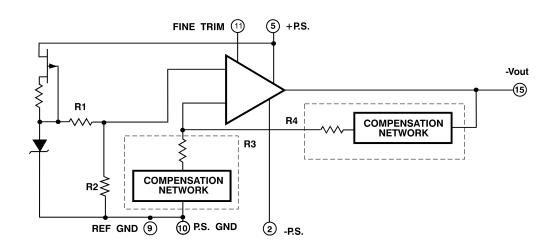
APPLICATIONS

DfYW]g]cb 5#8 UbX 8#5 Hf U b g X i WY f '9 l W] h U h] c b ments

DESCRIPTION

)VRE202 Series Precision Voltage Reserences provide ´į `hfilejgah#UsV7`Yfikkks)7`Jnccihdihg k] UbX hYadYfUhifY WcYZÙW]Ybh Ug improvements have been made in other performance $< Y f a Y h] W & \$! H Y f a] b U ` 7 Y f_d \psi_{\theta} j_{y} W_{Y} h_{\theta}^{\theta} \gamma_{f}^{7} g \cdot Ug \cdot k Y ` ž \cdot] b W` i X] b | A] `] h U f m ` D f c W Y g g] b [` C d h]_{i} @ b X f] Z h ž `] b Y · f Y [i ` U h] c b ž ` U b]_{i} & b X f] Z h ž ` `] b Y · f Y [i ` U h] c b ž ` U b]_{i} & b X f] Z h ž ` `] b Y · f Y [i ` U h] c b ž ` U b]_{i} & b X f] Z h ž ` `] b Y · f Y [i ` U h] c b ž ` U b]_{i} & b X f] Z h ž ` `] b Y · f Y [i ` U h] c b ž ` U b]_{i} & b X f]$ the VRE202 series the most accurate and stable 2.5 V surface mount references available. VRE202 devices are available in two operating tem!

Figure 1. BLOCK DIAGRAM



SELECTION GUIDE

| Model | Output (V) | Temperature Operating Range | Volt Deviation (MAX) |
|-----------|------------|--------------------------------|-------------------------|
| JF9&\$&7 | +2.5V | ! &) š 7 ' h c | · Ž , –) &š) 7\$ ± J |
| JF9&\$&75 | +2.5V | ! &) š 7 h c | Ž, -) &š\$7\$ ± J |



20-terminal Ceramic LCC Package Style HD

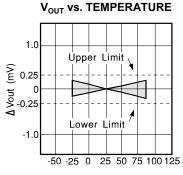




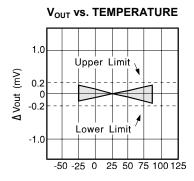




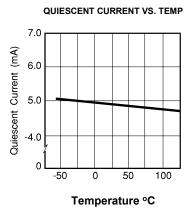
2. TYPICAL PERFORMANCE CURVES

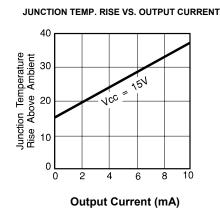


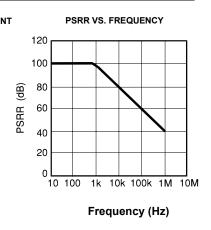
Temperature °C VRE202C



Temperature °C VRE202CA







3. THEORY OF OPERATION

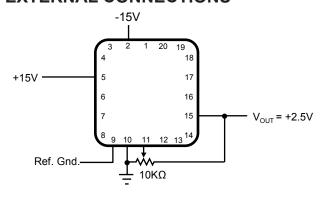
VRE202DS 3



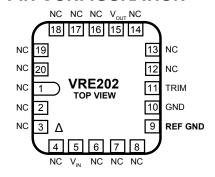
4. APPLICATION INFORMATION

 $H \setminus Y \cdot dfcdYf \cdot WcbbYWh]cb \cdot cZ \cdot h \setminus Y \cdot JF9 \& \$ \& gYf]Yg \cdot jc \cdot hU[Y \cdot fYZYfYWUfYZi \cdot UhhYbh]cb \cdot hc \cdot h \setminus Y \cdot W]fWi]h \cdot umcih \cdot hc \cdot Ujc]X \cdot bc]gY \cdot d] \\ H \setminus Y \cdot JF9 \& \$ \& \cdot gYf]Yg \cdot jc \cdot hU[Y \cdot fYZYfYbWYg \cdot UjY \cdot h \setminus Y \cdot [fcibX \cdot hYfaUfY \cdot WcbbYWhYX \cdot hc[Yh \setminus Yf \cdot]bhYfbU \cdot m" \cdot H \setminus]g \cdot U \cdot ckg \cdot h \setminus Y \cdot igYf \cdot UfYZYfYbWYg \cdot UjY \cdot U \cdot jc \cdot hU[Y \cdot Xfcd \cdot UWfcgg \cdot h \setminus Y]f \cdot dckYf \cdot gidd \cdot m \cdot WcbhUWh \cdot fYg]ghUbWY \cdot kUg \cdot WcbghUhf]aaYX \cdot cih'' \cdot K \setminus Yb \cdot h \setminus Y \cdot fYZYfYbWY \cdot]g \cdot d \cdot i[[YX \cdot]bhc \cdot U \cdot gcW_YhzbYWh]b[\cdot d]b \cdot % \cdot hc \cdot h \setminus Y \cdot dckYf \cdot gidd \cdot m \cdot [fcibX \cdot UbX \cdot d]b \cdot - hc \cdot U \cdot h \setminus Y \cdot Yffcf \cdot XiY \cdot hc \cdot h \setminus Y \cdot WcbhUWh \cdot fYg]ghUbWY \cdot WUb \cdot VY \cdot Y \cdot]a]bUhYXgiZ \cdot UW]Ybh \cdot m \cdot gaU \cdot h \cdot Uh \cdot]h \cdot XcYg \cdot bch \cdot YZZYWh \cdot dYfZcfaUbWY ''$

EXTERNAL CONNECTIONS



PIN CONFIGURATION



CONTACTING CIRRUS LOGIC SUPPORT

= A D C F H 5 B H · B C H = 7 9

7] ffig "@c[] Wz '= b W" 'Ub X'] hg 'gi Vg] X] Uf] Yg 'fi" 7] ffig "Ł' VY'] Yj Y' h\Uh' h\Y'] bZcfa Uh] cb' Vhc' W\Ub[Y'k] h\cih' bch] WY'Ub X'] g' dfcj] XY X' "5G' = G"'k] h\cih' kUff Ub hm'cZ'Ub m'_] b X'flY] b Z cfa Uh] cb' hc'j Yf] Z mz 'VY Z cfY'd'UW] b ['cfX Y fgz'h\Uh'] b Z cfa Uh] cb' VY] b ['fY'] Y X'cb'] g gi dd'] Y X'Uh'h\Y'h] a Y'cZ'cf XY f'UW_bck'YX [a Y b hz'] b W'iX] b ['h\cgY'dY fhU] b] b ['hc'kUff U Z cf'h\Y'igY'cZ'h\] g'] b Z cfa Uh] cb' Ug'h\Y'VUg] g'Z cf'h\Y'igY'cZ'h\] g'B Z cfa Uh] cb' Ug'h\Y'VUg] g'Z cf'h\Y'igY'cZ'h\] g'B Z cfa Uh] cb' Ug'h\Y'VUg] g'Z cf'h\Y'igY'cZ'h\] g'B Z cfa Uh] cb' Cb'm'Z cf'igY'cZ'h\] g'B Z cfa Uh] Cb' Cb'm'Z cf'igY'k] h\] b'mcif'cf[Ub] n Uh] X cYg'bch'YlhYb X'hc'ch\Yf'Wcdm] b ['giW\'Ug'Wcdm] b ['Zcf'[YbYfU'X] ghf] Vih] cbz'UXj Yfh

79FH5=B '5DD@=75H=CBG' I G=B; G9A=7CB8I 7HCF' DFC8I 7HG' A5M' =BJC@J9' DCH9BH=5@'!F=G?G' C: 9FHM' CF' 9BJ=FCBA9BH5@'85A5; 9' fil 7F=H=75@'5DD@=75H=CBGl L'' 7=FFI G' DFC8I 7HG' 5F9' BCH' GI = H56@9': CF' I G9' = B' DFC8I 7HG' GI F; =75@@M' = AD@5BH98' = BHC' H<9' 6C8M½' 5I HCACH=J9' G5: 9FI 7HG' CF' CH<9F' 7F=H=75@'5DD@=75H=CBG'' =B7@I G=CB' C: 7=FFI G' DFC8I 7HG' =B' GI 7!<'5DD@=75H CA9F DG' F=G?' 5B8' 7=FFI G' 8=G7@5=AG' 5B8' A5? 9G' BC' K5FF5BHM½' 9L DF9GGZ' GH5HI HCFM' CF' =A9F7<5BH56=@=HM' 5B8': =HB9GG': CF' D5FH=7I @5F' DI FDCG9Z' K=H<'F9; 5F8' HC' 5BM' 7=FFI G' DFC8I 7HG' =B' 7F6H CA9F DG' CF' 7I GHCA9FDG' 7I GHCA9F' 1 G9G' CF' D9FA=HG' H<9' I G9' C: 7=FFI G' DFC8I 7HG' =B' 7F6M' GI 7<' I G9Z' HC': I @@M' =B89AB=: M' 7=FFI GZ' =HG' C: =79FGZ' 8=F97HCFGZ' 9AD@CM99GZ' 8=GH @=56=@=HMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B; 5HHCFB9MGD': 99G' 5B8' 7CGHGZ' H<5H' A5H' A5M' F9GI @H': FCA' CF' 5F=G9' =B' A56=BHMZ' =B7@I 8=B' A56=BHZ' =B7@I 8=B' A56=BHZ' =B7AMZ' =B7AMZ'

7] ffig`@c[] Wž`7] ffigž`UbX`h\Y`7] ffig`@c[] W``c[c`XYg] [bgž`5dYl`DfYW] g] cb`DckYfž`5d5```ch\Yf`VfUbX`UbX`UbX`dfcXiWh`bUaYg`] b`h\] g`XcWiaYbh`aUm`VY`hfUXYaUf_g`cf`gYfj] WY`a

4 VRE202DS