



Ultra-Fast Recovery Diodes 20A FRED



Features

- " \$GRSW)5(' FKLS
- " /RZ IRUZDUG 9ROWDJH GURS
- ")DVW UHYHUVH UHFYHU\ WLPH
- " +LJK IUHTXHQF\ RSHUDWLRQ
- " +LJK SXULW\ KLJK WHPHUDWXUH HSR[\ H
- HQKQDFHG PHFKDQD D DOP RWUMQUWU HVLVWD
- " *XDUG ULQJ IRU HQDVF BGGU DRJH

Typical Applications

- 7\SLFDO DSSOLFDWLRQV DUH LQ VZLWFKLQJ
- IUHHZKHHOLQJ GLRGHV DQG UHYHUVH EDW

Mechanical Data

- " **Package** 72 \$%
- 0ROGLQJ FRPSRQG PPHWPPDELOLW\
- UDWLQJ 5R+6 FRPSOLDQW
- " **Terminals** 7LQ SODWHG OHDGV VROGHUDEOH S
- DQG -(6' %
- " **Polarity** \$V PDUNHG "

Maximum Ratings 7M 8QOHVV RWKHU\LVH VSHFLILHG

| PARAMETER | SYMBOL | UNIT | MURS2030CTS |
|---|----------|------|-------------------|
| 'HYLFH PDUNLQJ FRGH | | | 0856 &76 |
| 5HSHWLWLYH 3HDN 5HYHUVH 9ROWDJH | I_{SM} | A | 9 |
| \$YHUDJH 5HFWLILHG 2XWSXW &XUUHQW # +] VLQH ZDYH 5 ORDG 7F) | I_{AV} | A | \$ |
| 6XUJH 1RQ UHSHWLWLYH)RUZDUG &XUUHQW # +] KDOI VLQH ZDYH - F\FOH 7D)60 | I_{SM} | A | \$ |
| &XUUHQW 6TXDUHG 7LPH # -FV "W" P,W 7M | I_{SM} | A | \$ V |
| 6WRUDJH 7HPSHUDWXUH | T_{VJ} | °C | 0 V, 100 pA P0p 0 |
| 7\SLFDO -XQFWLRQ FDSDFLWDQFH # 8M 0+] | f_{RM} | Hz | S) |



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Electrical Characteristics

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | Min | Typ | Max |
|---|--------|------|-----------------------------|-------|----------------------|-----|
| , QVWDQWDQHRXV IRUZDUG YROWDJH GURS SHU CLRCH | | | 90 \$ # M - | | | |
| | | | 90 \$ # 7 M - | | | |
| ' & UHYHUVH FXUUHQW DW UDWHG ' & EORFNLQJ YROWDJH SHU CLRCH | 550 | | 950 9550 7 M - | | | |
| | 550 | | 950 9550 7 M - | | | |
| 5HYHUVH 5HFRYHU\ 7LPH | 55 | QV | 90 \$ 50, \$ 55 \$ 7 M - | | | |
| | | | 7 M - | | | |
| | | | 7 M - | | | |
| 3HDN UHFRYHU\ FXUUHQW | 550 | \$ | 7 M - | \$ XV | | |
| | | | 7 M - | | 90 \$ GL GW 950 9 | |
| 5HYHUVH UHFRYHU\ FKDUJH | | Q & | 7 M - | | | |
| | | | 7 M - | | | |

Thermal Characteristics

| PARAMETER | SYMBOL | UNIT | MURS2030CTS |
|-------------------|---------------------------|------|-------------|
| 7KHUPDO 5HVWUDQFH | %HWZHHQ MXQFWLRQ DQG FDVH | - : | 5 |
| | %HWZHHQ MXQFWLRQ DQG \$LU | - : | 5 |

Ordering Information ([DPSOH

| PREFERRED P/N | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) |
|---------------|----------------|----------------------|-------------------------|
| | | | |



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Characteristics 7 \ S L F D O

Average Forward Output Current (A)

Case Temperature $\text{Å} \text{ Å}$

FIG2: Surge Forward Current Capability

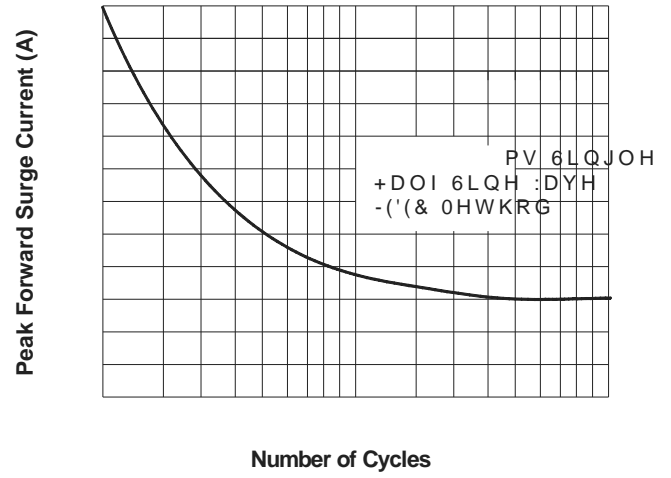
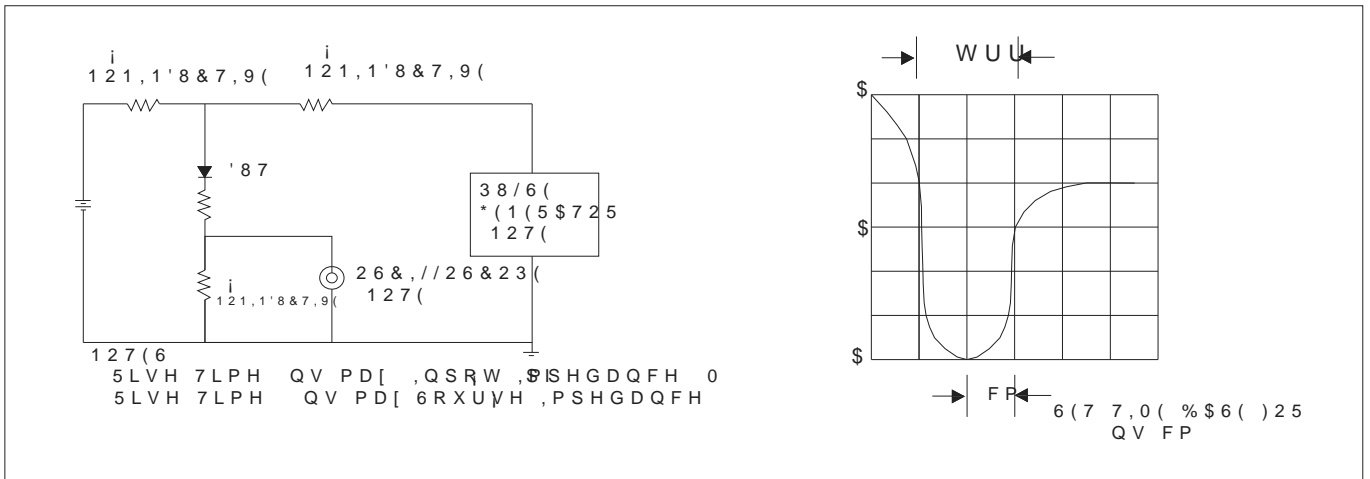


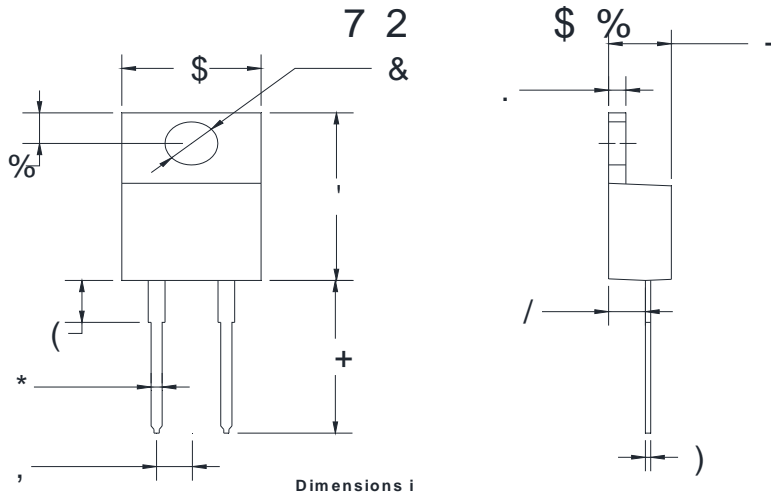
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





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Outline Dimensions



72G G G G

@q4RpRfRfSFAA%Re@QqS)RfRfRfBA%-(5 p>P€



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Disclaimer

7KH LQIRUPDWLRQ V GHVFHQWV LQ WKH UDQGHU JKRQJ HDUHQZHG (HGHFVRUR QLF /VHG UHV
ULJKW WR PDNLWKRDXW IRU VSHFIRU RYVSLRQG RFWV GLVSDUHYGHKWHUOILDEWGLWLVJQQF
RU RWKHUZZLVH

7KH SURGXFWQLVGHV IJHGH WR EHKWVHGWZLWKL RUGXQSRHQW RU GHYLFHWWKQGQ
HTXLSPHQW RU GHYLFHV ZKLFK UHTXLW KHKE DIO IZLWVLRQ XIDHGGDEHGHVW K DFKQDOLIH
PHGLFDO LQVWUXPHVWV WDWLRQHUTRXLSPH RFXKOHU UHVFWKHU FRQWURROGHV DQ
GHYLFHV <DQJMLHVRV DFKBQH DQVXRLVWRRUWHOSRBLVLEWHVROVLIQJGIDRPPXMF K LP
RI VDOH

7KLV SXEOLFDFWRQ SVXSHUW DGHVLQURUPDVLROQLSGHYRURXVGLWLRQDO LQWRUPDWLR
KWVZ [\DQJMLHRRR](#) PRQVXOW \RXU QHDUHVW <DQJMLVHVDQVDFHOHV RILFH IRU IXUW