

## FAST EFFICIENT RECTIFIERS

| <b>I<sub>o</sub> (A)</b>                           | <b>0.50</b>                   | <b>0.60</b>       | <b>1.0</b>        |                          |                   |                               |                   |                   |
|--|-------------------------------|-------------------|-------------------|--------------------------|-------------------|-------------------------------|-------------------|-------------------|
| <b>CASE TYPE</b>                                   | <b>DO-213AA<br/>MINI-MELF</b> | <b>UG06</b>       | <b>DO-204AL</b>   | <b>DO-204AP</b>          |                   | <b>DO-204AL</b>               | <b>DO-204AP</b>   |                   |
| <b>V<sub>RRM</sub><br/>(VOLTS)</b>                 |                               |                   |                   |                          |                   |                               |                   |                   |
| <b>50</b>  | EGL34A                        | UG06A#            | EBP10A            | UF4001#                  | FE1A              |                               | UG1A#             | GI1001            |
| <b>100</b>   | EGL34B                        | UG06B#            | EBP10B            | UF4002#                  | FE1B              |                               | UG1B#             | GI1002            |
| <b>150</b>   | EGL34C                        | UG06C#            | EBP10C            |                          | FE1C              |                               | UG1C#             | GI1003            |
| <b>200</b>   | EGL34D                        | UG06D#            | EBP10D            | UF4003#                  | FE1D              |                               | UG1D#             | GI1004            |
| <b>300</b>   | EGL34E                        |                   | EBP10E            |                          |                   |                               |                   |                   |
| <b>400</b>   | EGL34G                        |                   | EBP10G            | UF4004#                  |                   |                               |                   |                   |
| <b>500</b>   |                               |                   |                   |                          |                   |                               |                   |                   |
| <b>600</b>   |                               |                   |                   | UF4005#                  |                   |                               |                   |                   |
| <b>800</b>   |                               |                   |                   | UF4006#                  |                   | BYV26D                        |                   |                   |
| <b>1000</b>  |                               |                   |                   | UF4007#                  |                   | BYV26E                        |                   |                   |
| <b>MAX V<sub>F</sub><br/>(volts)</b>               | 1.25 / 1.35                   | 0.95              | 0.95 / 1.25       | 1.0 / 1.7                | 0.95              | 2.5                           | 0.95              | 0.975             |
| <b>t<sub>rr</sub> (ns)</b>                         | 50.0<br>(*ckt #1)             | 15.0<br>(*ckt #2) | 50.0<br>(*ckt #1) | 50.0 / 75.0<br>(*ckt #1) | 35.0<br>(*ckt #1) | 75.0<br>(*ckt #1)             | 15.0<br>(*ckt #2) | 25.0<br>(*ckt #1) |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+25°C</b>  | 5.0                           | 5.0               | 5.0               | 10.0                     | 2.0               | 5.0                           | 5.0               | 2.0               |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+100°C</b> |                               | 100.0             |                   | 50.0                     | 50.0              |                               | 200.0             | 50.0              |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+125°C</b> | 50.0                          |                   |                   |                          |                   |                               |                   |                   |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+150°C</b> |                               |                   | 100.0             |                          |                   | 15.0<br>T <sub>J</sub> =165°C |                   |                   |
| <b>SURGE (A)</b>                                   | 10.00                         | 40.0              | 30.0              | 30.0                     | 30.0              | 30.0                          | 40.0              | 30.0              |









**Notes:**

■ Shaded area indicates SUPERRECTIFIER®

# Uses glass passivated chips

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## FAST EFFICIENT RECTIFIERS (cont.)

| $I_o$ (A)                                    | 1.0   |   |   | 1.5   | 2.0   |   |   |   |                                  |                                   |
|--|---|---|---|---|---|---|---|---|----------------------------------|-----------------------------------|
| CASE TYPE                                    | DO-213AB MELF   | DO-214AC SMA  |   | DO-214BA  | GP20  | DO-204AC  | DO-204AP  |   | DO-204AC                         | DO-214AA SMB                      |
| $V_{RRM}$ (VOLTS)                            |  |  |  |  |  |  |  |  |                                  |                                   |
| 50   | EGL41A<br><sup>(1)</sup> BYM12-50   | ES1A#   | US1A#   | EGP1A   |   | EGP20A  | FE2A  | BYV27-50  | UG2A#                            | ES2A#                             |
| 100  | EGL41B<br><sup>(1)</sup> BYM12-100  | ES1B#   | US1B#   | EGP1B   |   | EGP20B  | FE2B  | BYV27-100   | UG2B#                            | ES2B#                             |
| 150  | EGL41C<br><sup>(1)</sup> BYM12-150  | ES1C#   |   | EGP1C   |   | EGP20C  | FE2C  | BYV27-150   | UG2C#                            | ES2C#                             |
| 200  | EGL41D<br><sup>(1)</sup> BYM12-200  | ES1D#   | US1D#   | EGP1D   |   | EGP20D  | FE2D  | BYV27-200   | UG2D#                            | ES2D#                             |
| 300  | EGL41F<br><sup>(1)</sup> BYM12-300  |   |   |   |   | EGP20F  |   |   |                                  | ES2F                              |
| 400  | EGL41G<br><sup>(1)</sup> BYM12-400  |   | US1G#   |   | SUF15G#   | EGP20G  |   |   |                                  | ES2G                              |
| 600  |   |   | US1J#   |   | SUF15J#   |   |   |   |                                  |                                   |
| MAX Vf (volts)                               | 1.0/1.25  | 0.92  | 1.0/1.7   | 1.0   | 1.80  | 0.95/1.25   | 0.95  | 1.07  | 0.95                             | 0.90/                             |
| $t_r$ (ns)                                   | 50.0<br><sup>(*)</sup> (*ckt #1)  | 15.0<br><sup>(*)</sup> (*ckt #1)  | 50.0/75.0<br><sup>(*)</sup> (*ckt #1)   | 50.0<br><sup>(*)</sup> (*ckt #1)  | 35.0<br><sup>(*)</sup> (*ckt #1)  | 50.0<br><sup>(*)</sup> (*ckt #1)  | 35.0<br><sup>(*)</sup> (*ckt #1)  | 25.0<br><sup>(*)</sup> (*ckt #1)  | 15.0<br><sup>(*)</sup> (*ckt #2) | 20.0/<br><sup>(*)</sup> (*ckt #1) |
| $I_R$ ( $\mu$ A)<br>$T_A=+25^\circ\text{C}$  | 5.0   | 5.0   | 10.0  | 5.0   | 10.0  | 5.0   | 2.0   | 1.0   | 5.0                              | 10.0                              |
| $I_R$ ( $\mu$ A)<br>$T_A=+100^\circ\text{C}$ |   | 100   | 50  |   | 100   |   | 50.0  |   | 200.0                            | 350.0                             |
| $I_R$ ( $\mu$ A)<br>$T_A=+125^\circ\text{C}$ | 50.0  |   |   | 50.0  |   | 100.0   |   |   |                                  |                                   |
| $I_R$ ( $\mu$ A)<br>$T_A=+150^\circ\text{C}$ |   |   |   |   |   |   | 50.0  | 150.0   |                                  |                                   |
| SURGE (A)                                    | 30.0  | 30.0  | 30.0  | 30.0  | 50.0  | 75.0  | 50.0  | 30.0  | 50.0                             | 50.0                              |

**Notes:**








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<sup>(1)</sup> BYM12-XX numbers (European designations) are equivalent to the EGL41X series

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## FAST EFFICIENT RECTIFIERS (cont.)

| Io (A)               |                          | 3.0   |   |   |   |   | 3.5   | 4.0   |
|----------------------|--------------------------|---|---|---|---|---|---|---|
| CASE TYPE            |                          | DO-201AD  | GP20  | P600  | G4  | DO-214AB  | G3  | DO-201AD  |
| VRRM (VOLTS)         |                          |  |  |  |  |  |  |  |
| 50                   | GI1101                   | UF5400#   | EGP30A  |   | FE3A  | ES3A#   | BYV28-50  | UG4A#   |
| 100                  | GI1102                   | UF5401#   | EGP30B  |   | FE3B  | ES3B#   | BYV28-100   | UG4B#   |
| 150                  | GI1103                   |   | EGP30C  |   | FE3C  | ES3C#   | BYV28-150   | UG4C#   |
| 200                  | GI1104                   | UF5402#   | EGP30D  |   | FE3D  | ES3D#   | BYV28-200   | UG4D#   |
| 300                  |                          | UF5403#   | EGP30E  |   |   |   |   |   |
| 400                  |                          | UF5404#   | EGP30G  | SUF30G#   |   |   |   |   |
| 500                  |                          | UF5405#   |   |   |   |   |   |   |
| 600                  |                          | UF5406#   |   | SUF30J#   |   |   |   |   |
| 800                  |                          | UF5407#   |   |   |   |   |   |   |
| 1000                 |                          | UF5408#   |   |   |   |   |   |   |
| MAX Vf (volts)       | 0.975/1.25               | 1.0 / 1.70  | 0.95 / 1.35   | 1.8/2.0   | 0.95  | 0.90  | 1.1   | 0.95  |
| tr (ns)              | 25.0 / 50.0<br>(*ckt #1) | 50.0 / 75.0<br>(*ckt #1)  | 50.0<br>(*ckt #1)   | 35.0<br>(*ckt #1)   | 35.0<br>(*ckt #1)   | 20.0<br>(*ckt #1)   | 30.0<br>(*ckt #1)   | 20.0<br>(*ckt #2)   |
| Ir (μA)<br>TA=+25°C  | 2.0/10.0                 | 10.0  | 5.0   | 10.0  | 5.0   | 10.0  | 1.0   | 5.0   |
| Ir (μA)<br>TA=+100°C | 50.0/200.0               | 50.0  |   | 100.0   | 50.0  | 500   |   | 300.0   |
| Ir (μA)<br>TA=+125°C |                          |   | 100.0   |   |   |   |   |   |
| Ir (μA)<br>TA=+150°C |                          |   |   |   | 50.0  |   | 150.0   |   |
| SURGE (A)            | 50                       | 150.00  | 125.0   | 80.0  | 125.0   | 100.0   | 90.0  | 125.0   |




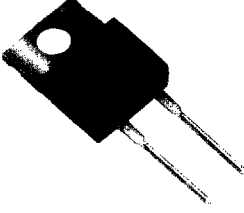

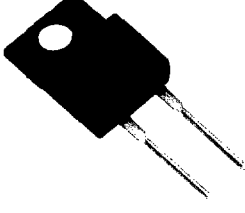
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## FAST EFFICIENT RECTIFIERS (cont.)

| <b>I<sub>o</sub> (A)</b>                            | <b>5.0</b>  |   | <b>6.0</b>  | <b>8.0</b>  |   |   | <b>16.0</b>       |                          |
|---|---|---|---|---|---|---|-------------------|--------------------------|
| <b>CASE TYPE</b>                                    | <b>GP20</b>   | <b>G4</b>   | <b>G4</b>   | <b>TO-220AC</b>   | <b>TO-263AB</b><br>"B" prefix<br>ex. UGBXX  | <b>ITO-220AC</b><br>"F" prefix<br>ex. UGFXX   |                   |                          |
|   |  |  |  |  |  |  |                   |                          |
| <b>V<sub>RRM</sub> (VOLTS)</b>                      |   |   |   |   |   |   |                   |                          |
| <b>50</b>   | FE5A  | FE5A  | FE6A  | UG8AT#  | FES8AT#   | GI1401#   | BYW29-50#         | FES16AT#                 |
| <b>100</b>  | FE5B  | FE5B  | FE6B  | UG8BT#  | FES8BT#   | GI1402#   | BYW29-100#        | FES16BT#                 |
| <b>150</b>  | FE5C  | FE5C  | FE6C  | UG8CT#  | FES8CT#   | GI1403#   | BYW29-150#        | FES16CT#                 |
| <b>200</b>  | FE5D  | FE5D  | FE6D  | UG8DT#  | FES8DT#   | GI1404#   | BYW29-200#        | FES16DT#                 |
| <b>300</b>  | FE5E  |   |   | UG8FT#  | FES8FT#   |   |                   | FES16FT#                 |
| <b>400</b>  | FE5F  |   |   | UG8GT#  | FES8GT#   |   |                   | FES16GT#                 |
| <b>500</b>  | FE5H  |   |   | UG8HT#  | FES8HT#   |   |                   | FES16HT#                 |
| <b>600</b>  | FE5J  |   |   | UG8JT#  | FES8JT#   |   |                   | FES16JT#                 |
| <b>MAX V<sub>F</sub> (volts)</b>                    | 0.95 / 1.25   | 0.95  | 0.975   | 1.0 / 1.30 / 1.75   | 0.95 / 1.3 / 1.5  | 0.975   | 1.3               | 0.95 / 1.3 / 1.5         |
| <b>t<sub>rr</sub> (ns)</b>                          | 50.0<br>(*ckt #1)   | 35.0<br>(*ckt #1)   | 35.0<br>(*ckt #1)   | 20.0 / 25.0<br>(*ckt #1&2)  | 35.0 / 50.0<br>(*ckt #1)  | 35.0<br>(*ckt #1)   | 25.0<br>(*ckt #2) | 35.0 / 50.0<br>(*ckt #1) |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+25°C</b>   | 5.0   | 5.0   | 5.0   | 10.0  | 10.0  | 5.0   | 10.0              | 10.0                     |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+100°C</b>  |   | 50.0  | 50.0  | 300.0   | 100.0   | 150.0   | 100.0             | 500.0                    |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>= +150°C</b> |   |   | 50.0  |   | 50.0  |   |                   |                          |
| <b>SURGE (A)</b>                                    | 150.0   | 135.0   | 150.0   | 150.0 / 100.0   | 125.0   | 150.0   | 100.0             | 250.0                    |

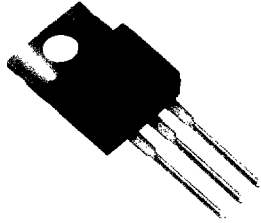
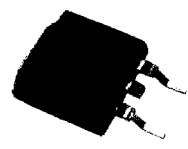
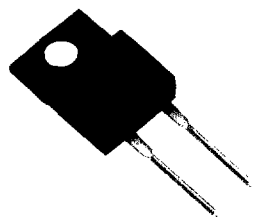
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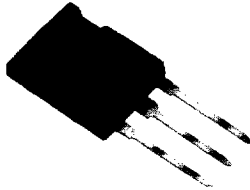
| I <sub>o</sub> (A)  | 6.0  | 10.0                 | 16.0  |                   | 18.0   |                   |
|---|--|----------------------|---|-------------------|--|-------------------|
| <b>CASE TYPE</b>  | <b>TO-220AB</b>  |                      | <b>TO-263AB<br/>"B" prefix<br/>ex. FEPBXX</b>                                       |                   | <b>ITO-220AC<br/>"F" prefix<br/>ex. FEPFXX</b> |                   |
|  |  |                      |  |                   |  |                   |
| <b>V<sub>RRM</sub><br/>(VOLTS)</b>  |  |                      |   |                   |  |                   |
| <b>50</b>   | FEP6AT#  | UG10ACT#             | FEP16AT#  | GI2401#           | BYV32-50#                                      | UG18ACT#          |
| <b>100</b>  | FEP6BT#  | UG10BCT#             | FEP16BT#  | GI2402#           | BYV32-100#                                     | UG18BCT#          |
| <b>150</b>  | FEP6CT#  | UG10CCT#             | FEP16CT#  | GI2403#           | BYV32-150#                                     | UG18CCT#          |
| <b>200</b>  | FEP6DT#  | UG10DCT#             | FEP16DT#  | GI2404#           | BYV32-200#                                     | UG18DCT#          |
| <b>300</b>  |  | UG10FCT#             | FEP16FT#  |                   |  |                   |
| <b>400</b>  |  | UG10GCT#             | FEP16GT#  |                   |  |                   |
| <b>500</b>  |  |                      | FEP16HT#  |                   |  |                   |
| <b>600</b>  |  |                      | FEP16JT#  |                   |  |                   |
| <b>MAX V<sub>F</sub><br/>(volts)</b>  | 0.975  | 1.25 / 1.30          | 0.95 / 1.3 / 1.5  | 0.975             | 1.15   | 1.1               |
| <b>t<sub>rr</sub> (ns)</b>  | 35<br>(*ckt #1)  | 25 / 35<br>(*ckt #1) | 35.0 / 50.0<br>(*ckt #1)  | 35.0<br>(*ckt #1) | 25.0<br>(*ckt #2)                              | 20.0<br>(*ckt #1) |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+25°C</b>                                 | 5.0  | 10.0                 | 10.0  | 5.0               | 10.0   | 10.0              |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+100°C</b>                                | 50.0   | 200.0                | 500.0   | 150.0 / 500.0     | 600.0  | 300.0             |
| <b>SURGE (A)</b>  | 100.0  | 60.0                 | 125.0   | 125.0             | 150.0  | 175.0             |

**Note:**

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## FAST EFFICIENT RECTIFIERS (cont.)

| <b>I<sub>o</sub> (A)</b>                           | <b>30.0</b>  |                  |
|--|--|------------------|
| <b>CASE TYPE</b>                                   | <b>TO-247AD</b>  |                  |
| <b>V<sub>RRM</sub> (VOLTS)</b>                     |  |                  |
| <b>50</b>  | FEP30AP#   | UG30APT#         |
| <b>100</b>   | FEP30BP#   | UG30BPT#         |
| <b>150</b>   | FEP30CP#   | UG30CPT#         |
| <b>200</b>   | FEP30DP#   | UG30DPT#         |
| <b>300</b>   | FEP30FP#   |                  |
| <b>400</b>   | FEP30GP#   |                  |
| <b>500</b>   | FEP30HP#   |                  |
| <b>600</b>   | FEP30JP#   |                  |
| <b>MAX V<sub>F</sub> (volts)</b>                   | 0.95 / 1.3 / 1.5   | 1.0              |
| <b>t<sub>rr</sub> (ns)</b>                         | 35.0 / 50.0<br>(ckt #1)  | 20.0<br>(ckt #2) |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+25°C</b>  | 10.0   | 15.0             |
| <b>I<sub>R</sub> (μA)<br/>T<sub>A</sub>=+100°C</b> | 500.0  | 800.0            |
| <b>SURGE (A)</b>                                   | 300.0  | 300.0            |

**Note:**

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- \* Circuits are on page 95