

| $I_f$ (av) | $V_{RM}$ max. | $t_{rr}$ (max.) | Package | Mftr. | Mftrs. List No. | $I_f$ (av) | $V_{RM}$ max. | $t_{rr}$ (max.) | Package | Mftr. | Mftrs. List No. |
|------------|---------------|-----------------|---------|-------|-----------------|------------|---------------|-----------------|---------|-------|-----------------|
| 8          | 200           | 35              | DO-220  | ST    | BYW80-200       | 16         | 600           | 90              | DO-4(b) | IR    | 16FL60S02       |
| 8          | 200           | 35              | DO-220  | ST    | BYW29-200       | 20         | 200           | 35              | TO-220  | ST    | BYW51-200       |
| 8          | 400           | 35              | DO-220  | ST    | BYT08P-400      | 25         | 200           | 50              | SOD-93  | ST    | BYW77P-200      |
| 8          | 400           | 75              | DO-220  | ST    | BYT08PI-400     | 25         | 200           | 50              | DOP-3I  | ST    | BYW77PI-200     |
| 8          | 600           | 150             | DO-220  | ST    | BY233-600       | 27         | 400           | 60              | TO-247  | —     | C25P40FR        |
| 8          | 1000          | 155             | DO-220  | ST    | BYT08PI-1000    | 30         | 150           | 25              | SOT-93  | ST    | BYW99P-150      |
| 10         | 1500          | 600             | DO-220  | PS    | BY359-1500      | 30         | 200           | 35              | SOT-93  | ST    | BYW99P-200      |
| 12         | 1000          | 50              | DO-220  | ST    | BYT12P-1000     | 30         | 400           | 50              | SOD-93  | ST    | BYT30P-400      |
| 12         | 1000          | 50              | DO-220  | ST    | BYT12PI-1000    | 30         | 400           | 50              | DOP-3I  | ST    | BYT30PI-400     |
| 12         | 1000          | 65              | DO-220  | TFK   | BYT12P/1000A    | 30         | 1000          | 70              | SOD-93  | ST    | BYT30P-1000     |
| 12         | 1500          | 350             | DO-220  | PS    | BY459-1500      | 30         | 1000          | 70              | DOP-3I  | ST    | BYT30PI-1000    |
| 15         | 200           | 35              | DO-220  | ST    | BYW81P-200      | 60         | 200           | 50              | SOT-93  | ST    | BYV52-200       |
| 15         | 200           | 35              | DO-220  | ST    | BYW81PI-200     | 60         | 400           | 100             | SOD-93  | ST    | BYT60P-400      |
| 16         | 400           | 35              | TO-220  | ST    | BYT16P-400      |            |               |                 |         |       |                 |

\*Total forward current with both diodes conducting

SD80

| Mftrs. List No. | Order Code | Price Each |     |      |      |
|-----------------|------------|------------|-----|------|------|
|                 |            | 1+         | 25+ | 100+ | 250+ |
| BY233-600       | 366-419    |            |     |      |      |
| BY359-1500      | 366-444    |            |     |      |      |
| BY459-1500      | 164-150    |            |     |      |      |
| BYT08P-400      | 437-761    |            |     |      |      |
| BYT08PI-400     | 742-521    |            |     |      |      |
| BYT08PI-1000    | 742-533    |            |     |      |      |
| BYT12PI-1000    | 505-997    |            |     |      |      |
| BYT12P-1000     | 437-700    |            |     |      |      |
| BYT12P/1000A    | 995-265    |            |     |      |      |
| BYT16P-400      | 437-748    |            |     |      |      |
| BYT30P-400      | 437-736    |            |     |      |      |
| BYT30P-1000     | 366-559    |            |     |      |      |
| BYT30PI-400     | 742-545    |            |     |      |      |
| BYT30PI-1000    | 366-560    |            |     |      |      |
| BYT60P-400      | 742-557    |            |     |      |      |
| BYV52-200       | 742-569    |            |     |      |      |
| BYW29-200       | 742-582    |            |     |      |      |
| BYW51-200       | 505-900    |            |     |      |      |
| BYW77P-200      | 505-924    |            |     |      |      |
| BYW77PI-200     | 996-567    |            |     |      |      |
| BYW80-200       | 366-705    |            |     |      |      |
| BYW81P-200      | 505-950    |            |     |      |      |
| BYW81PI-200     | 505-961    |            |     |      |      |
| BYW99P-150      | 367-175    |            |     |      |      |
| BYW99P-200      | 505-973    |            |     |      |      |
| C25P40FR        | 737-835    |            |     |      |      |
| 16FL60S02       | 366-997    |            |     |      |      |

## Fast Recovery Power Modules



| Pin Out | 1  | 2  | 3  | 4  |
|---------|----|----|----|----|
| a       | K1 | A2 | K2 | A1 |
| b       | A1 | K1 | K2 | A2 |
| c       | A2 | K2 | K1 | A1 |

| $V_{RRM}$ V | $I_F^*$ (av) A | $t_{rr}$ max. ns | $V_F$ max. V | Pin Out | Mftrs. List No. |
|-------------|----------------|------------------|--------------|---------|-----------------|
| 200         | 100            | 60               | 1.25         | a       | BYV54V-200      |
| 200         | 100            | 60               | 1.15         | b       | BYV541V-200     |
| 200         | 200            | 80               | 1.25         | b       | BYV255V-200     |
| 400         | 60             | 100              | 1.5          | a       | BYT230PIV-400   |
| 400         | 120            | 100              | 1.5          | b       | BYT261PIV-400   |
| 600         | 60             | 65               | 1.75         | b       | STTA6006TV1     |
| 600         | 60             | 65               | 1.5          | a       | STTA6006TV2     |
| 600         | 120            | 80               | 1.75         | b       | STTA12006TV1    |
| 1000        | 60             | 165              | 1.9          | a       | BYT230PIV-1000  |
| 1000        | 120            | 170              | 1.9          | b       | BYT1261PIV-1000 |
| 1200        | 50             | 60*              | 2.1          | b       | STTA5012TV1     |
| 1200        | 90             | 115              | 2.05         | a       | STTA9012TV2     |
| 1200        | 90             | 115              | 2.05         | b       | STTA9012TV1     |

\*Total forward current with both diodes conducting

SD290

| Mftrs. List No. | Order Code | Price Each |    |     |     |
|-----------------|------------|------------|----|-----|-----|
|                 |            | 1+         | 5+ | 10+ | 25+ |
| BYT230PIV-400   | 367-084    |            |    |     |     |
| BYT230PIV-1000  | 367-096    |            |    |     |     |
| BYT261PIV-400   | 367-102    |            |    |     |     |
| BYT261PIV-1000  | 367-114    |            |    |     |     |
| BYV54V-200      | 367-140    |            |    |     |     |
| BYV255V-200     | 367-151    |            |    |     |     |
| BYV541V-200     | 705-688    |            |    |     |     |
| STTA5012TV1     | 332-8296   |            |    |     |     |
| STTA6006TV1     | 705-860    |            |    |     |     |
| STTA6006TV2     | 707-582    |            |    |     |     |
| STTA9012TV1     | 705-871    |            |    |     |     |
| STTA9012TV2     | 519-650    |            |    |     |     |
| STTA12006TV1    | 707-594    |            |    |     |     |

## Fast, Soft-Recovery



Glass DO-41 L = 5.2, Dia. = 2.7 Glass DOT-30B L = 4.2, Dia. = 3.0

Soft recovery diodes offer reduced RFI emission due to the reduced slope of their reverse recovery current characteristic.

| $V_{RRM}$ V | $I_F$ (AV) A | $I_{FRM}$ A | $I_{FSM}$ A | $t_{rr}$ max. ns | Package | Mftr. | Mftrs. List No. |
|-------------|--------------|-------------|-------------|------------------|---------|-------|-----------------|
| 600         | 1.25         | —           | 30          | 150              | DOT-30B | TFK   | BYT42J          |
| 1000        | 1.0          | —           | 30          | 500              | DO-41   | GS    | RGP10M          |
| 1000        | 1.25         | —           | 30          | 200              | DOT-30B | TFK   | BYT42M          |

SD125

### Order Multiple=5

| Mftrs. List No. | Order Code | 5+ | 25+ | 100+ | 250+ | 1K+ |
|-----------------|------------|----|-----|------|------|-----|
| BYT42J          | 995-472 †  |    |     |      |      |     |
| BYT42M          | 995-484    |    |     |      |      |     |

### Order Multiple=1

| Mftrs. List No. | Order Code | 1+ | 100+ | 1K+ | 3K+ |
|-----------------|------------|----|------|-----|-----|
| RGP10M          | 259-810    |    |      |     |     |

† Available until stocks are exhausted

## Parallel Efficiency Diodes



Glass BY228: L = 5.0, Dia = 4.5  
Glass BY448: L = 4.57, Dia = 3.81

Parallel efficiency diodes offer high reverse voltage capability and controlled recovery time, for use in horizontal scan circuits of TV monitors and receivers.

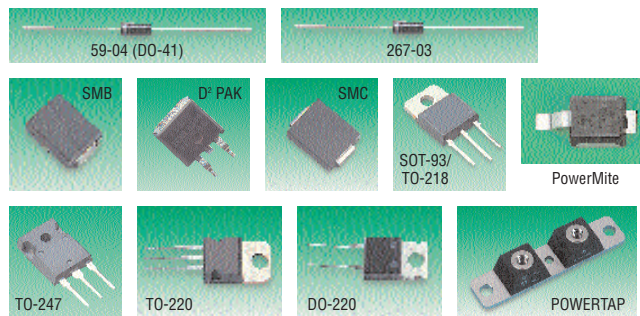
| $V_{RRM}$ max. V | $I_{FWM}$ max. A | $I_{FRM}$ max. A | $T_{tot}$ max. $\mu$ s | Mftr.  | Mftrs. List No. |
|------------------|------------------|------------------|------------------------|--------|-----------------|
| 1500             | 4                | 8                | 20                     | PS/TFK | BY448           |
| 1500             | 5                | 10               | 20                     | PS/TFK | BY228           |

SD127

| Mftrs. List No. | Order Code | Price Each |      |     |     |
|-----------------|------------|------------|------|-----|-----|
|                 |            | 1+         | 100+ | 1K+ | 3K+ |
| BY228 (PS)      | 366-304    |            |      |     |     |
| BY228 (TFK)     | 995-149    |            |      |     |     |
| BY448 (PS)      | 366-316    |            |      |     |     |
| BY448 (TFK)     | 995-150    |            |      |     |     |

## Power Diodes – Ultra-Fast Recovery

### Power Diode Package Outlines



SD382

### Ultra Fast, Epitaxial

### Philips Semiconductors



SOD-87



- $I_{RRM}$  repetitive ruggedness guaranteed
- Wide package range available (including SMD)
- Best  $V_F/I_F/T_j$  combination available giving low losses
- Excellent reverse recovery behaviour gives reduced switching losses:
  - 150V/200V types offer  $T_{rr} < 25$ ns
  - 300V/400V/500V types offer  $T_{rr} < 60$ ns
- All feature low stored charge giving a soft recovery characteristic

### \* Power Factor Correction Diodes

| $I_D$ (AV)/ $I_F$ (av) (A) | $V_{RRM}$ (V) | $V_F$ (V) @ | $I_F$ (A) | SINGLE/DUAL | SOD87  |
|----------------------------|---------------|-------------|-----------|-------------|--------|
| 2                          | 50            | 0.98        | 1         | SINGLE      | BYD77A |
| 2                          | 100           | 0.98        | 1         | SINGLE      | BYD77B |
| 2                          | 200           | 0.98        | 1         | SINGLE      | BYD77D |
| 1.85                       | 400           | 1.05        | 1         | SINGLE      | BYD77G |

SD491

### Order Multiple=5

| Mftrs. List No. | Order Code | 5+ | 25+ | 100+ | 250+ | 1K+ |
|-----------------|------------|----|-----|------|------|-----|
| BYD77A          | 316-2606   |    |     |      |      |     |
| BYD77B          | 316-2618   |    |     |      |      |     |
| BYD77D          | 316-2620   |    |     |      |      |     |
| BYD77G          | 316-2631   |    |     |      |      |     |

Continued

## Temperature Conversion

