

silicon signal diodes

diodes de signal au silicium

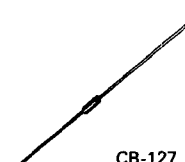
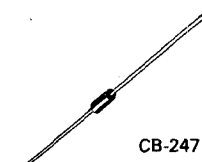


| Type | V _{RRM} (V) | I _F I _{O*} (mA) | I _R / V _R max (μ A) (V) | V _F / I _F max (V) (mA) | C / V _R max (pF) (V) | Dynamic parameters Paramètres dynamiques | Case |
|------|-------------------------|---|--|--|---------------------------------------|---|------|
|------|-------------------------|---|--|--|---------------------------------------|---|------|

schottky diodes

T_{amb} = 25°C

diodes schottky

| | | | | | | | |
|-----------|-----|-------|----------|------------------------------|------------|--------------------------------|---|
| BAR 19 | 4 | | 0,25 3 | 0,6 10 | 1 1 | F = 6 dB / 1GHz | |
| BAT 29 | 5 | | 0,05 1 | 0,55 10 | 1 0 | Q _s < 3 pC / 10mA | |
| BAR 35 | 5 | | 0,1 1 | 0,34 1 | 1 0 | τ < 100 ps / 20mA | |
| BAT 19 | 10 | | 0,1 5 | 0,4 1 | 1,2 0 | τ < 100 ps / 20mA | |
| BAR 11 | 15 | | 0,1 8 | 0,41 1 | 1,2 0 | τ < 100 ps / 5mA | |
| BAR 10 | 20 | | 0,1 15 | 0,41 1 | 1,2 0 | τ < 100 ps / 5mA | |
| 1N 6263 | 60 | | 0,2 50 | 0,41 1 | 2,2 0 | τ < 100 ps / 5mA | |
| BAR 28 | 70 | | 0,2 50 | 0,41 1 | 2 0 | τ < 100 ps / 5mA | |
| BAT 45 | 15 | 30 | 0,1 6 | 0,5 10 | 0,8 \S 1 | t _{rr} < 1 ns / 10mA | |
| BAT 47 | 20 | 200 | 4 10 | 0,2 0,1 0,4 10 1 300 | 24 \S 1 | t _{rr} < 10 ns / 10mA |  |
| BAT 42 | 30 | 100 | 0,5 25 | 0,4 10 1 100 | 5 \S 1 | t _{rr} < 5 ns / 10mA | |
| BAT 43 | 30 | 100 | 0,5 25 | 0,45 15 1 100 | 5 \S 1 | η > 80 % / 45MHz | |
| BAT 48 | 40 | 200 | 2 10 | 0,2 0,1 0,4 10 0,9 500 | 24 \S 1 | t _{rr} < 10 ns / 10mA | |
| BAT 41 | 100 | 100 | 0,1 50 | 0,45 1 1 100 | 2 \S 1 | | |
| BAT 46 | 100 | 150 | 2 50 | 0,25 0,1 0,45 10 1 250 | 6 \S 1 | | |
| BYV 10-20 | 20 | 1000* | <1000 20 | 0,55 1000 0,85 3000 | 200 \S 0 | | |
| BYV 10-30 | 30 | 1000* | <1000 30 | 0,55 1000 0,85 3000 | 200 \S 0 | | |
| BYV 10-40 | 40 | 1000* | <1000 40 | 0,55 1000 0,85 3000 | 200 \S 0 | |  |

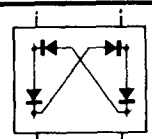
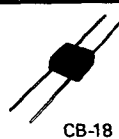
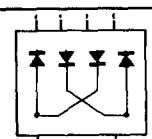
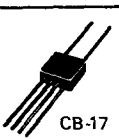
F : Mixer noise figure / Facteur de bruit en mélangeur
 Q_s : Stored charge (B-line) / Charges stockées (B-line)
 η : Detection efficiency / Rendement de détection
 τ : Minority carrier life time (Krakauer method) / Durée de vie des porteurs minoritaires (méthode Krakauer)
 \S : Typical value / Valeur typique

| Type | Material | f min max (MHz) | Carrier current attenuation Affaiblissement du courant porteur min (Np) | Modulator current attenuation Affaiblissement du courant modulateur min (Np) | Case/Diagram |
|------|----------|-----------------------|--|---|--------------|
|------|----------|-----------------------|--|---|--------------|

ring modulators

T_{amb} = 25°C

modulateurs en anneau

| | | | | | |
|----------------------------------|--------------------------------|---------------------|-------------|-------------------|---|
| A 502 GE A 523 Si SF A 302 | Ge W Si planar Si planar | 1 4 1 12 1 12 | 5 5 5 | 6,2 6,2 6,2 |   |
| A 503 GE SF A 303 | Ge W Si planar | 1 4 1 12 | 5 5 | 6,2 6,2 |   |