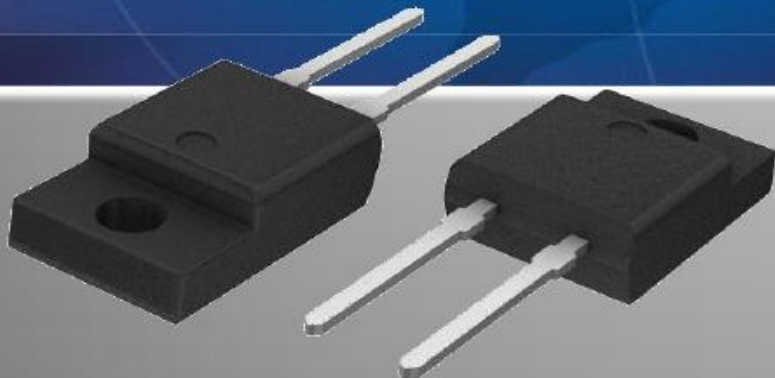
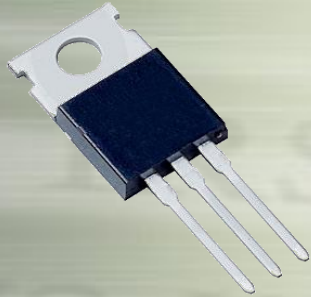


MOS Rectifiers



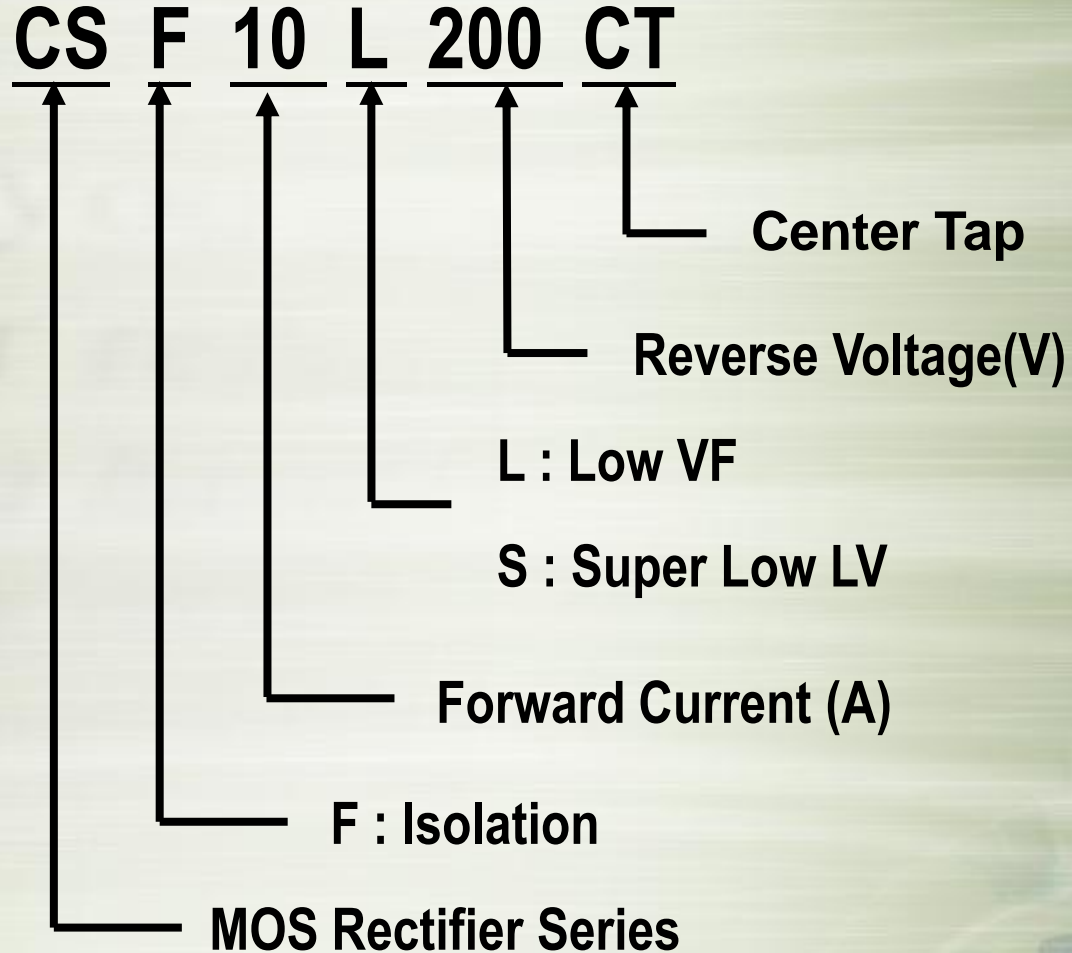
Product Part Number



TO-220AB

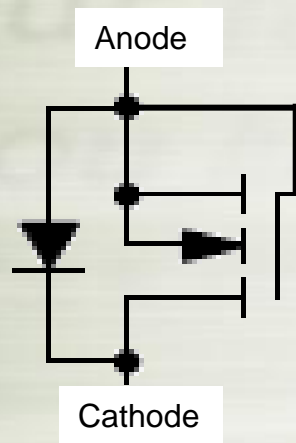


ITO-220AB

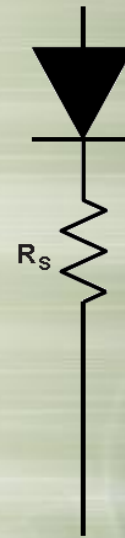


MOS Rectifier vs Schottky Diode

- MOS Rectifier doesn't need Schottky Contact
- MOS Rectifier easier to be tuned for low V_f & I_r than Schottky Diode
- Higher reliability, can work at higher temperature

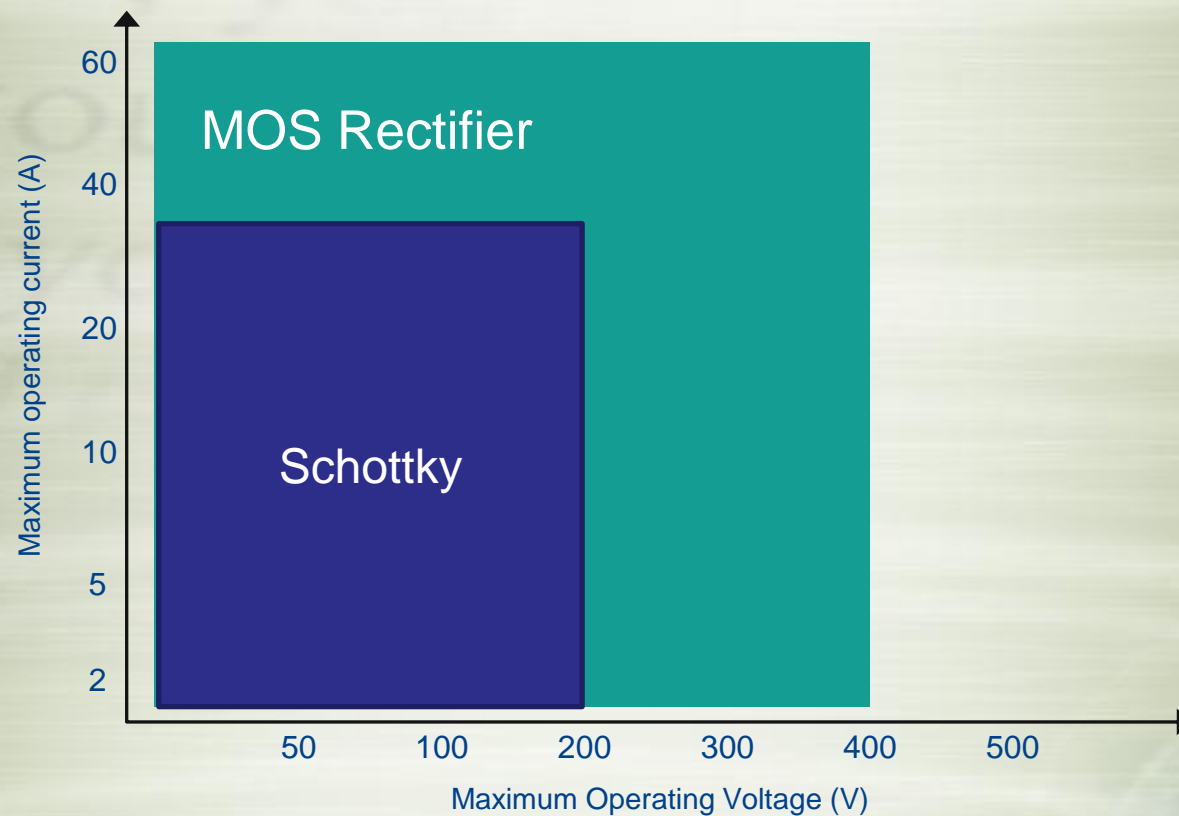


MOS
Rectifier
Schematic


















MOS Rectifier vs Schottky Diode

MOS Rectifier has wider range of operating voltage and current than Schottky



Performance MOS Rectifier vs Other Rectifiers

| | Forward Voltage, V_F | Leakage Current, I_R | Junction Temperature, T_j | Reverse Recovery Time, t_{rr} |
|-----------------------|---|---|---|---|
| Ultra-Fast Rectifiers |  High V_F |  Low I_R |  $T_j < 175^\circ\text{C}$ |  Very Fast |
| Standard Rectifiers |  High V_F |  Low I_R |  $T_j < 175^\circ\text{C}$ |  Slow |
| Schottky |  Low V_F |  High I_R | $T_j < 150^\circ\text{C}$ |  Very Fast |
| MOS Rectifier |  Low V_F |  Low I_R |  $T_j < 200^\circ\text{C}$ |  Very Fast |

Product Line

| PN | IO(A) | VR(V) | VF(Typ) | VF(Max) | IR(mA) | Package |
|------------|-------|-------|-------------------------------------|-------------------------------------|-------------|----------|
| CSRS1045 | 10 | 45 | 0.42V @15A 25°C 0.37V @15A 125°C | 0.47V @15A 25°C 0.41V @15A 125°C | 0.3mA @ 45V | DO-27 |
| CS30L45CT | 30 | 45 | 0.45V @15A 25°C 0.42V @15A 125°C | 0.50V @15A 25°C 0.45V @15A 125°C | 0.5mA @ 45V | TO-220AB |
| CS30L60CT | 30 | 60 | 0.51V @15A 25°C 0.53V @15A 125°C | 0.60V @15A 25°C 0.55V @15A 125°C | 0.5mA @ 60V | TO-220AB |
| CS20L100CT | 20 | 100 | 0.71V @15A 25°C 0.60V @15A 125°C | 0.75V @15A 25°C 0.64V @15A 125°C | 0.1mA @100V | TO-220AB |