

FEATURES

- Glass passivation chip junction.
- Fast switching for high efficiency
- High reliability
- Low forward voltage ,high current capacity Mechanical Data
- Case:TO-220AB molded plastic, Lead-free package
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plate, lead free, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: as marked

Product Description

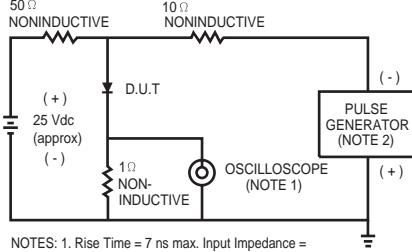
Designer for used the switching power supply. Inverter, free wheeling, and polarity protection application.

产品特性: F12C20C、F12C20A为高效超快快恢复整流二极管: 12A, 200V
 代替型号: MUR1220系列; ER1200系列...
 应用领域: 开关电源、逆变器、免费续流和极性保护应用
 应用范围: PC电源、开关电源、电动车充、电动工具、汽车功放等产品; 小功率电焊机广泛应用...

| Characteristics | Symbol | Typical data | Final Spec | Units |
|---|-------------------|--------------|------------|-------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 250~350 | 230 | V |
| Working Peak Reverse Voltage | V_{RWS} | | | |
| DC Blocking Voltage | V_r | | | |
| RMS reverse Voltage | $V_r(rms)$ | 150 | | |
| Maximum instantaneous forward voltage @6A | V_F | 0.95~1.05 | 1.1 | |
| Average Rectifier Forward Current Per Leg $T_c=125^{\circ}C$ Total Device | $I_{F(AV)}$ | | 6 12 | A |
| Peak Repetitivity Forward Current (Rate V_r , Square Wave,20kHz) | I_{FM} | | 12 | |
| Non-Repetitivity Peak Surge Current Maximum Instantaneous Forward | I_{FSM} | | 100 | |
| Maximum Instanteous Reverse Current (Rated DC Voltage , $T_c=25^{\circ}C$) (Rated DC Voltage, $T_c=125^{\circ}C$) | I_R | ≤ 1 | 5 100 | μA |
| Reverse Recovery Time ($I_f=0.5A, I_r=1.0, I_{rr}=0.25A$) | T_{rr} | 60~80 | 100 | nS |
| Typical Juncton Capacitance (Reverse Voltage of 4 volts &f=1MHz) | C_p | | 55 | pF |
| Operation and Storage Temp Range | T_J & T_{stg} | | -65~+150 | $^{\circ}C$ |

RATING CHARACTERISTIC CURVES (F12C05PT ~ F12C60PT)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm, 22 pF.
2. Rise Time = 10 ns max. Source Impedance = 50 ohms.

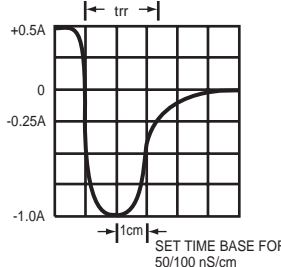


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

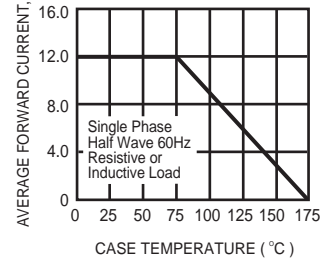


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

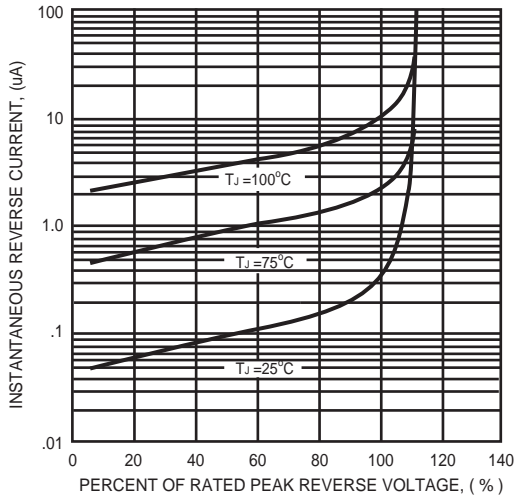


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

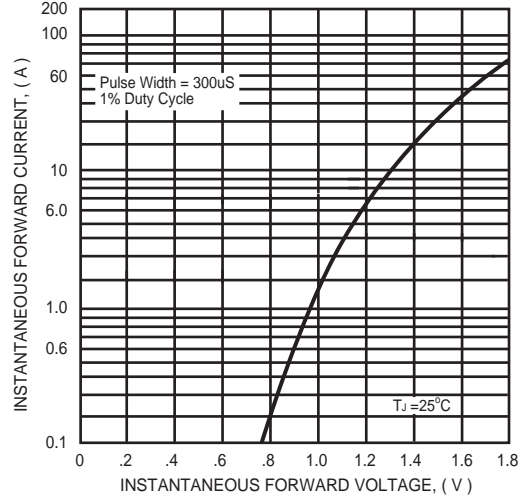


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

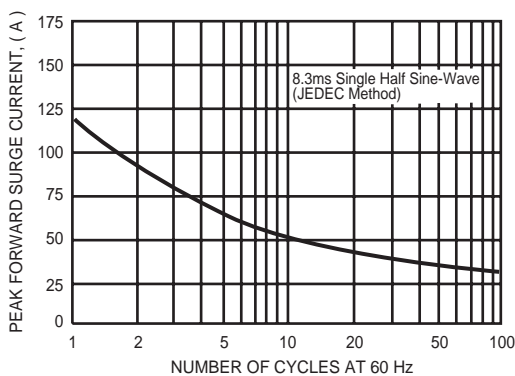
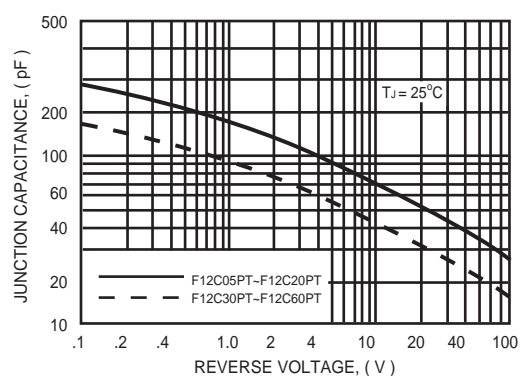
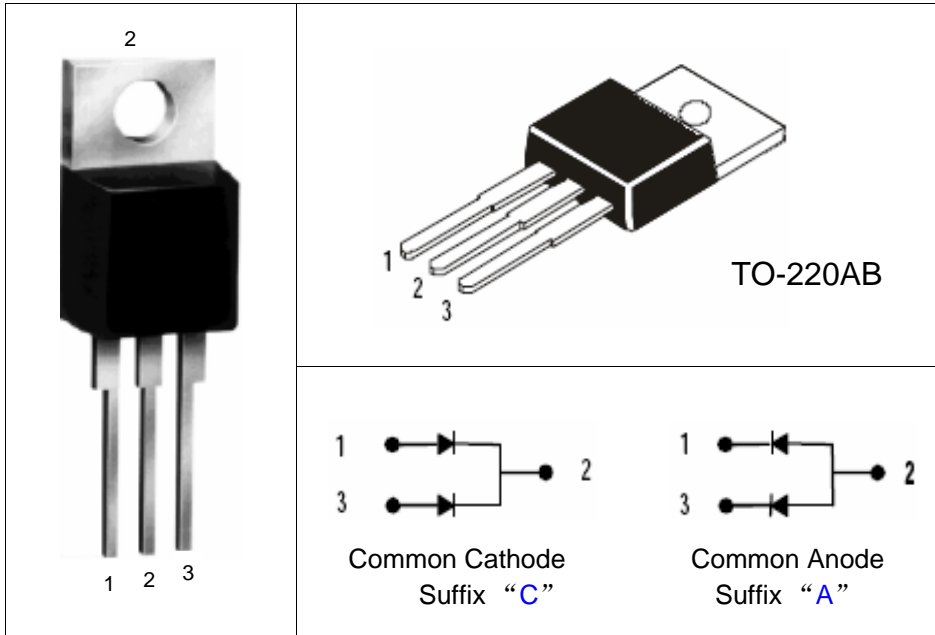


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



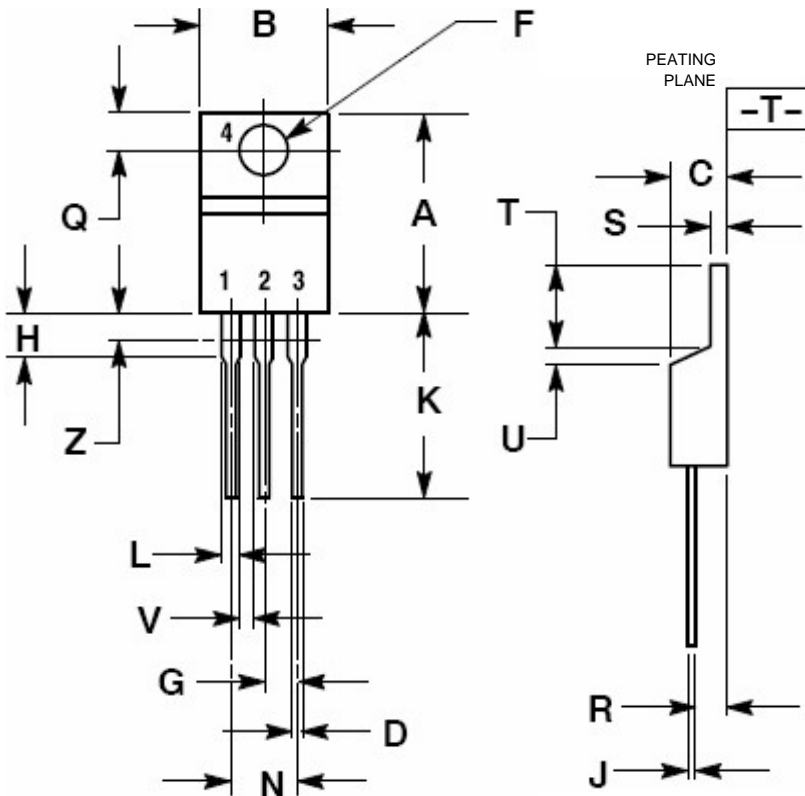


TO-220AB
Lead-free package
无铅环保封装

极性说明:
F12C20**C**: 共阴
F12C20**A**: 共阳

包装规格:
管装、盒装
每管50只
每盒1000只
每箱5000只

MECHANICAL DATA **Package: TO-220AB**
Package Dimensions **Dimensions in millimeters**



| DIM | INCHES | | MILLIMETERS | |
|-----|--------|-------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.570 | 0.620 | 14.48 | 15.75 |
| B | 0.380 | 0.405 | 9.660 | 10.28 |
| C | 0.160 | 0.190 | 4.070 | 4.820 |
| D | 0.025 | 0.035 | 0.640 | 0.880 |
| F | 0.142 | 0.161 | 3.610 | 4.090 |
| G | 0.095 | 0.105 | 2.420 | 2.660 |
| H | 0.110 | 0.155 | 2.800 | 3.930 |
| J | 0.014 | 0.025 | 0.360 | 0.640 |
| K | 0.500 | 0.562 | 12.70 | 14.27 |
| L | 0.045 | 0.060 | 1.150 | 1.520 |
| N | 0.190 | 0.210 | 4.830 | 5.330 |
| Q | 0.100 | 0.120 | 2.540 | 3.040 |
| R | 0.080 | 0.110 | 2.040 | 2.790 |
| S | 0.045 | 0.055 | 1.150 | 1.390 |
| T | 0.235 | 0.255 | 5.970 | 6.470 |
| U | 0.000 | 0.050 | 0.000 | 1.270 |
| V | 0.045 | --- | 1.150 | --- |
| Z | --- | 0.080 | --- | 2.040 |



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