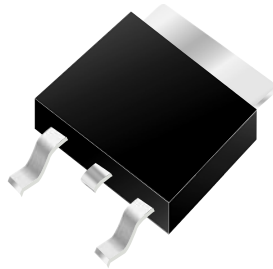


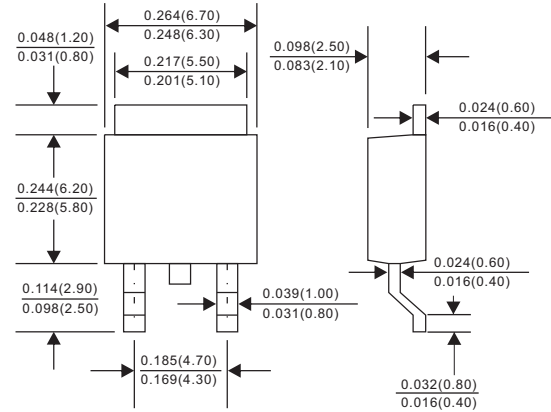
PKFM620C-D thru PKFM6200C-D

SCHOTTKY BARRIER RECTIFIER

6.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V



DPAK



Dimensions in inches and (millimeters)

FEATURES

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- Suffix "-H" indicates Halogen-free part, ex.PKFM620C-D-H.

MECHANICAL DATA

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, TO-252 / DPAK
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any
- Weight : Approximated 0.34 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | CONDITIONS | Symbol | MIN. | TYP. | MAX. | UNIT |
|----------------------------|---|-----------|------|------|------|------------------|
| Forward rectified current | See Fig.1 | I_o | | | 6.0 | A |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC methode) | I_{FSM} | | | 75 | A |
| Reverse current | $V_R = V_{RRM} \quad T_J = 25^\circ\text{C}$ | I_R | | | 0.5 | mA |
| | $V_R = V_{RRM} \quad T_J = 100^\circ\text{C}$ | | | | 20 | |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse voltage | C_J | | 250 | | pF |
| Storage temperature | | T_{STG} | -65 | | +175 | $^\circ\text{C}$ |

| SYMBOLS | V_{RRM}^{*1} (V) | V_{RMS}^{*2} (V) | V_R^{*3} (V) | V_F^{*4} (V) | Operating temperature $T_J, (^\circ\text{C})$ |
|-------------|-----------------------|-----------------------|-------------------|-------------------|--|
| PKFM620C-D | 20 | 14 | 20 | 0.55 | -55 to +125 |
| PKFM630C-D | 30 | 21 | 30 | | |
| PKFM640C-D | 40 | 28 | 40 | | |
| PKFM645C-D | 45 | 31.5 | 45 | 0.70 | -55 to +150 |
| PKFM650C-D | 50 | 35 | 50 | | |
| PKFM660C-D | 60 | 42 | 60 | | |
| PKFM680C-D | 80 | 56 | 80 | 0.85 | -55 to +150 |
| PKFM6100C-D | 100 | 70 | 100 | | |
| PKFM6150C-D | 150 | 105 | 150 | | |
| PKFM6200C-D | 200 | 140 | 200 | 0.92 | |

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F = 3.0\text{A}$

PKFM620C-D thru PKFM6200C-D

SCHOTTKY BARRIER RECTIFIER

Rating and characteristic curves (PKFM620C-D THRU PKFM6200C-D)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

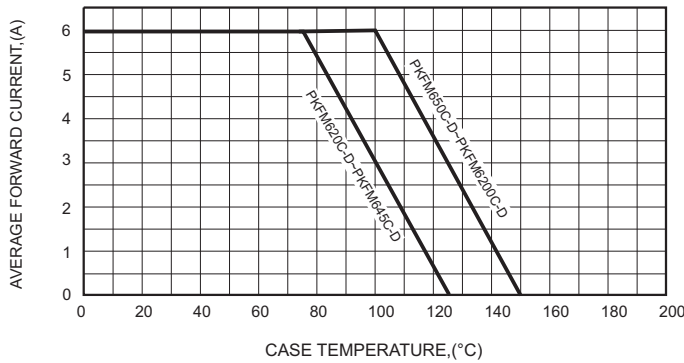


FIG.2-TYPICAL FORWARD CHARACTERISTICS

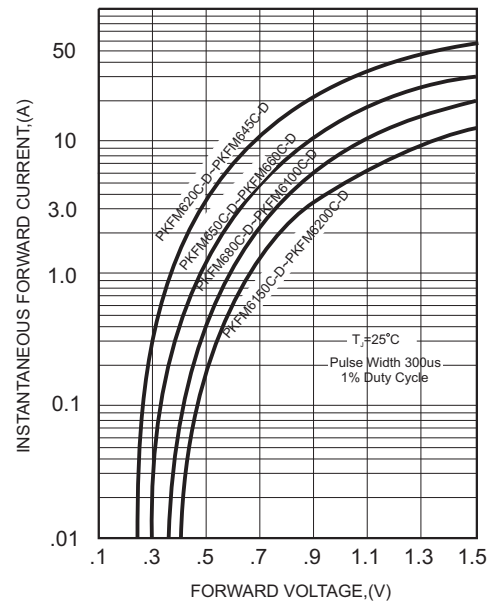


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

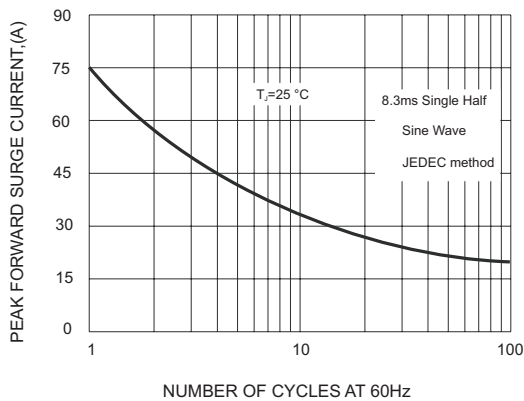


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

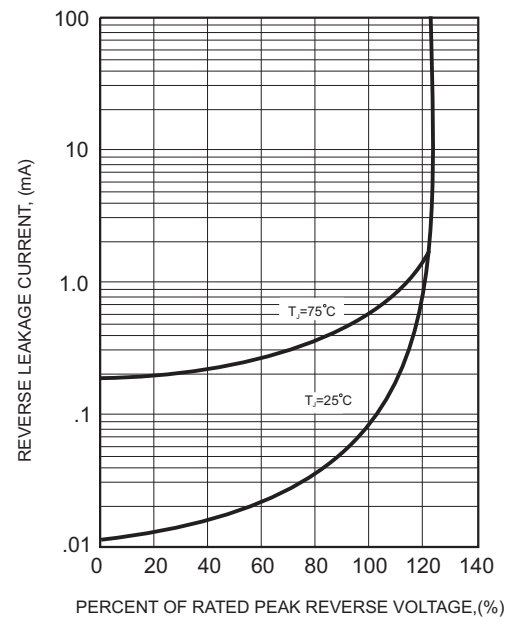
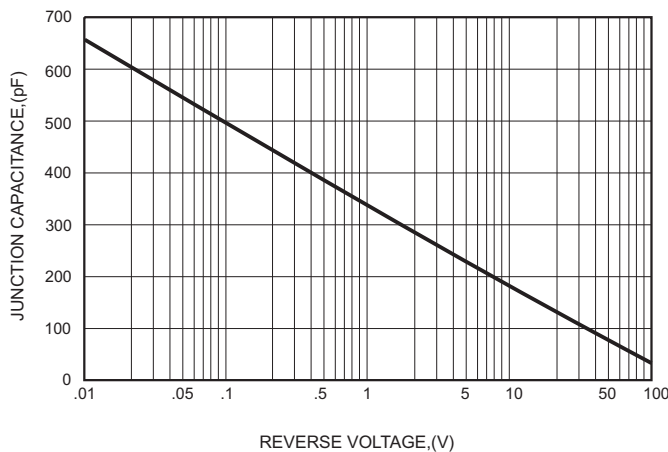


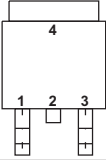
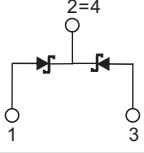
FIG.5-TYPICAL JUNCTION CAPACITANCE



PKFM620C-D thru PKFM6200C-D

SCHOTTKY BARRIER RECTIFIER

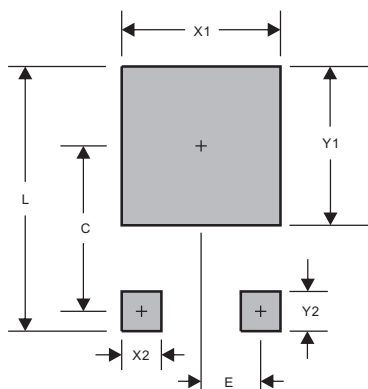
Pinning information

| Simplified outline | Symbol |
|---|---|
|  |  |

Marking

| Type number | Marking code |
|-------------|--------------|
| PKFM620C-D | SK620 |
| PKFM630C-D | SK630 |
| PKFM640C-D | SK640 |
| PKFM645C-D | SK640 |
| PKFM650C-D | SK650 |
| PKFM660C-D | SK660 |
| PKFM680C-D | SK680 |
| PKFM6100C-D | SK6100 |
| PKFM6150C-D | SK6150 |
| PKFM6200C-D | SK6200 |

Suggested solder pad layout



| PACKAGE | DKPAK |
|---------|--------------|
| C | 0.272(6.90) |
| E | 0.091(2.30) |
| L | 0.457(11.60) |
| X1 | 0.276(7.00) |
| X2 | 0.059(1.50) |
| Y1 | 0.276(7.00) |
| Y2 | 0.098(2.50) |

Dimensions in inches and (millimeters)