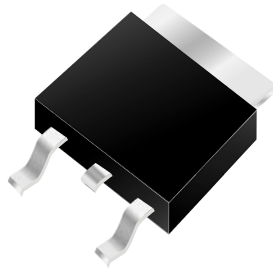


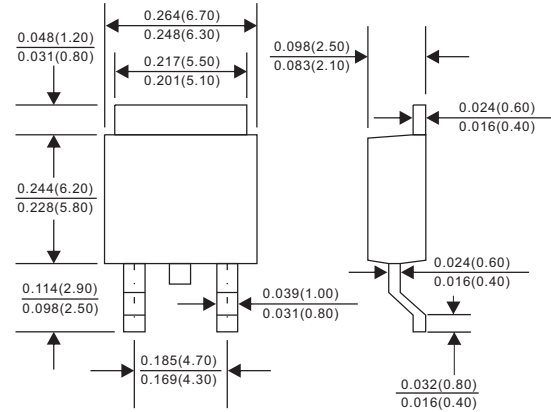
PKFM1020C-D thru PKFM10200C-D

SCHOTTKY BARRIER RECTIFIER

10.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V



DKAK



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" for Halogen-free part, ex. PKFM1020C-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			10.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			100	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		380		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 $T_J, (^{\circ}\text{C})$
PKFM1020C-D	20	14	20	0.55	-55 to +125
PKFM1030C-D	30	21	30		
PKFM1040C-D	40	28	40		
PKFM1045C-D	45	31.5	45		
PKFM1050C-D	50	35	50	0.70	-55 to +150
PKFM1060C-D	60	42	60		
PKFM1080C-D	80	56	80	0.85	
PKFM10100C-D	100	70	100		
PKFM10150C-D	150	105	150	0.90	
PKFM10200C-D	200	140	200	0.92	

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F = 5.0\text{A}$

PKFM1020C-D thru PKFM10200C-D

SCHOTTKY BARRIER RECTIFIER

Rating and characteristic curves (PKFM1020C-D THRU PKFM10200C-D)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

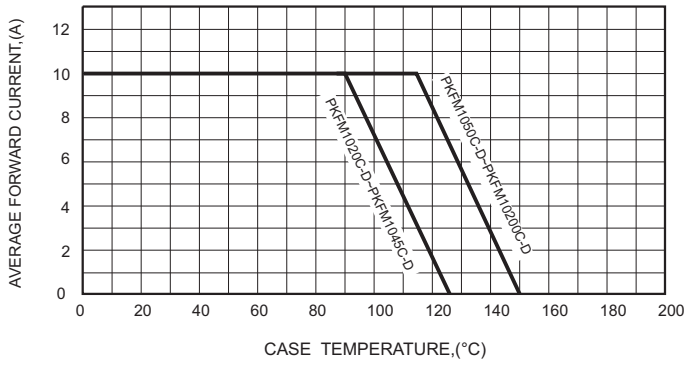


FIG.2-TYPICAL FORWARD CHARACTERISTICS

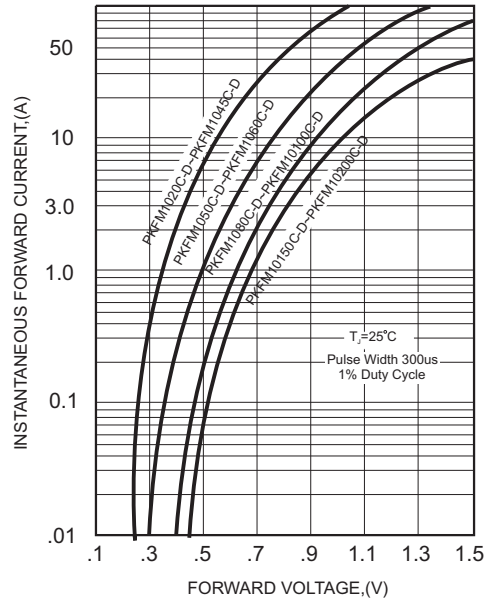


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

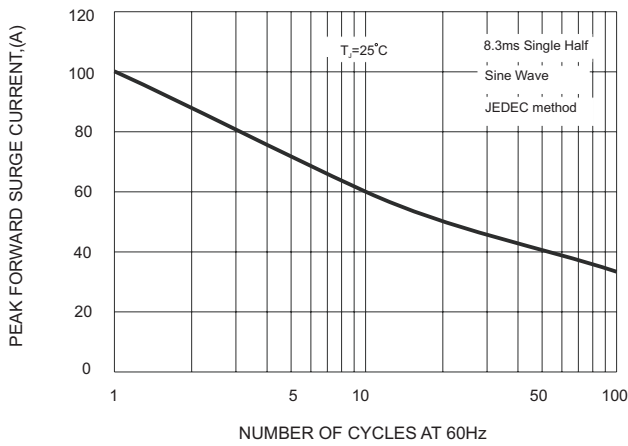


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

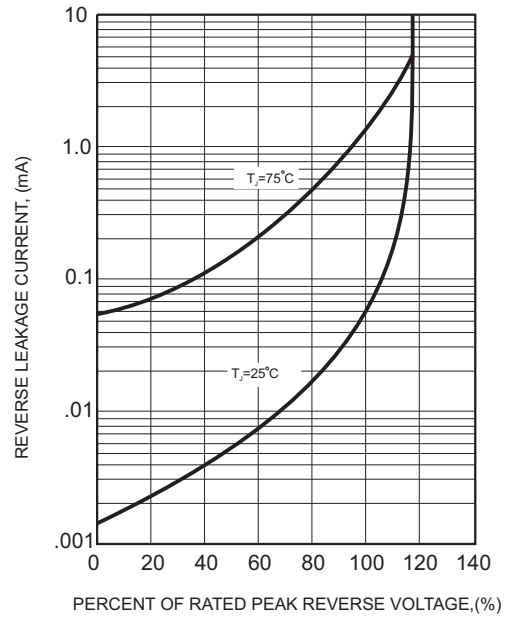
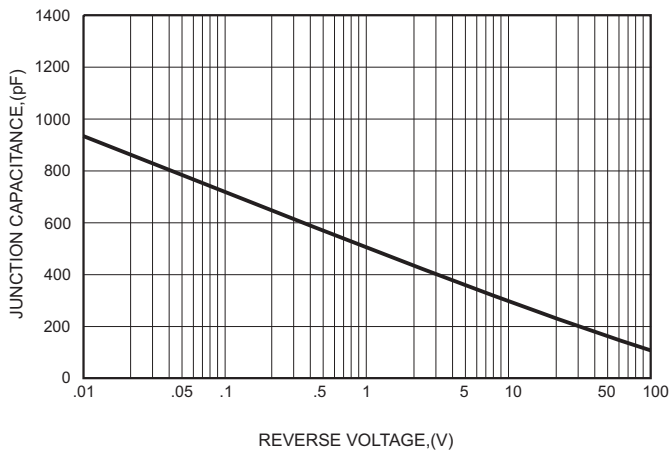


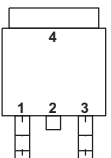
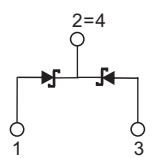
FIG.5-TYPICAL JUNCTION CAPACITANCE



PKFM1020C-D thru PKFM10200C-D

SCHOTTKY BARRIER RECTIFIER

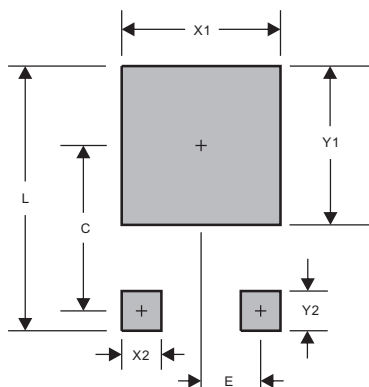
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
PKFM1020C-D	SK1020
PKFM1030C-D	SK1030
PKFM1040C-D	SK1040
PKFM1045C-D	SK1040
PKFM1050C-D	SK1050
PKFM1060C-D	SK1060
PKFM1080C-D	SK1080
PKFM10100C-D	SK10100
PKFM10150C-D	SK10150
PKFM10200C-D	SK10200

Suggested solder pad layout



PACKAGE	DPAK
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)