

# SKFM620C-D THRU SKFM6200C-D

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

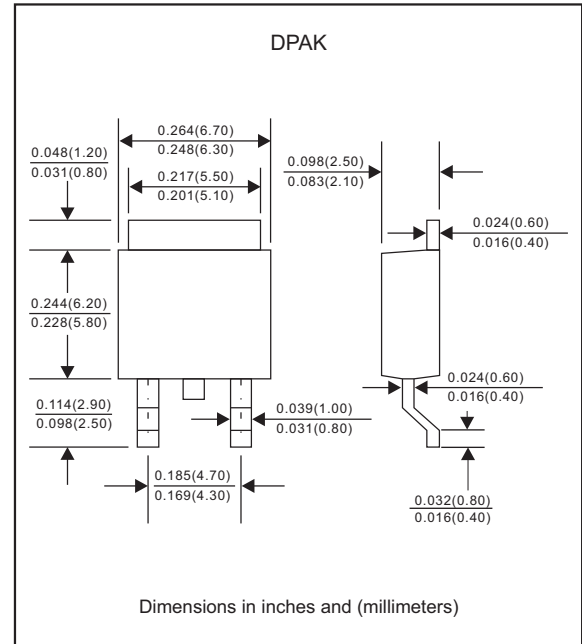
### Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- 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 RoHS requirements
- Suffix "-H" indicates Halogen-free part, ex. SKFM620C-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

### Package outline



### Maximum ratings and Electrical characteristics (AT T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I <sub>O</sub>			6.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I <sub>FSM</sub>			75	A
Reverse current	V <sub>R</sub> = V <sub>RRM</sub> T <sub>J</sub> = 25°C	I <sub>R</sub>			0.5	mA
	V <sub>R</sub> = V <sub>RRM</sub> T <sub>J</sub> = 100°C				20	
Typical thermal resistance	Junction to ambient	R <sub>θJA</sub>		41		°C/W
	Junction to case	R <sub>θJC</sub>		24		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C <sub>J</sub>		250		pF
Storage temperature		T <sub>STG</sub>	-65		+175	°C

SYMBOLS	V <sub>RRM</sub> *1 (V)	V <sub>RMS</sub> *2 (V)	V <sub>R</sub> *3 (V)	V <sub>F</sub> *4 (V)	Operating temperature T <sub>J</sub> , (°C)
SKFM620C-D	20	14	20	0.55	-55 to +125
SKFM630C-D	30	21	30		
SKFM640C-D	40	28	40		
SKFM645C-D	45	31.5	45		
SKFM650C-D	50	35	50	0.70	-55 to +150
SKFM660C-D	60	42	60		
SKFM680C-D	80	56	80	0.85	
SKFM6100C-D	100	70	100		
SKFM6150C-D	150	105	150	0.90	
SKFM6200C-D	200	140	200	0.92	

- \*1 Repetitive peak reverse voltage
- \*2 RMS voltage
- \*3 Continuous reverse voltage
- \*4 Maximum forward voltage@ I<sub>F</sub> = 3.0A

# Rating and characteristic curves (SKFM620C-D THRU SKFM6200C-D)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

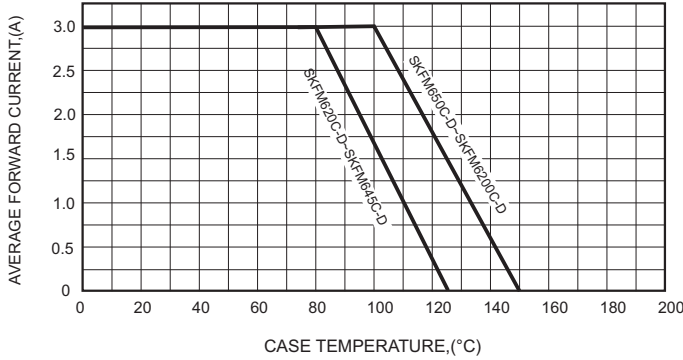


FIG.2-TYPICAL FORWARD CHARACTERISTICS

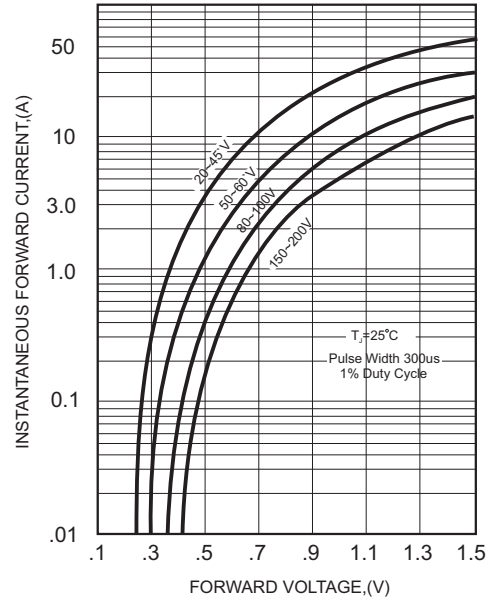


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

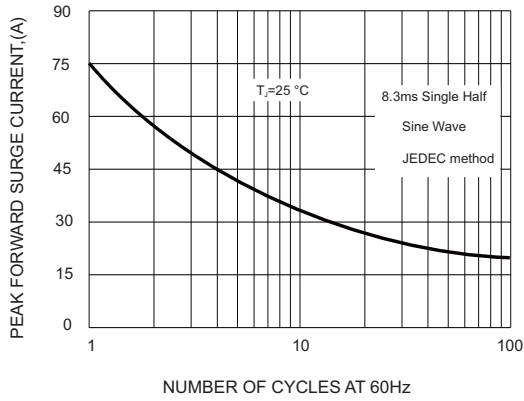


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

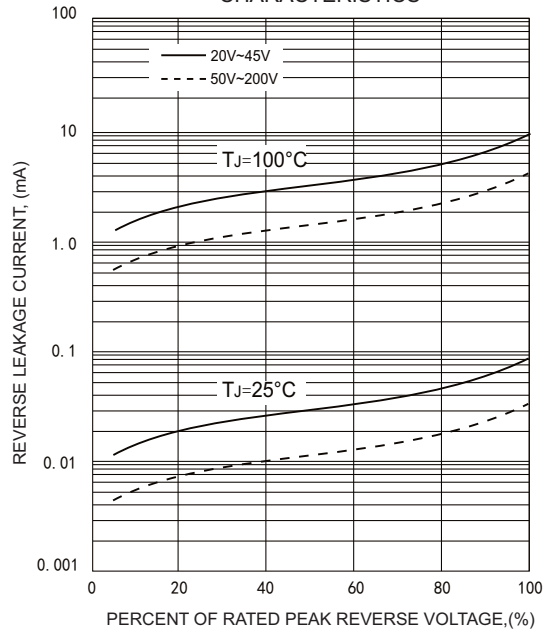
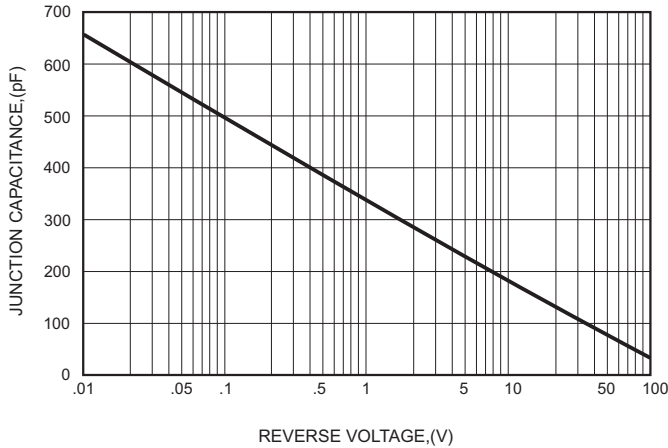
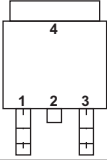
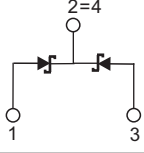


FIG.5-TYPICAL JUNCTION CAPACITANCE



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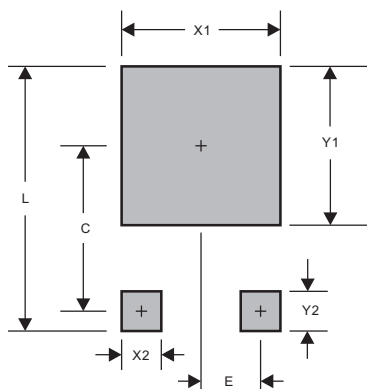
## Pinning information

Simplified outline	Symbol
	

## Marking

Type number	Marking code
SKFM620C-D	SK620
SKFM630C-D	SK630
SKFM640C-D	SK640
SKFM645C-D	SK640
SKFM650C-D	SK650
SKFM660C-D	SK660
SKFM680C-D	SK680
SKFM6100C-D	SK6100
SKFM6150C-D	SK6150
SKFM6200C-D	SK6200

## Suggested solder pad layout



PACKAGE	DDPAK
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)

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