WILLAS

RoHS COMPLIANT

10.0A SCHOTTKY BARRIER RECTIFIERS - 40V- 200V
DPAK PACKAGE

SKFM1040C-D THRU SKFM10200C-D

Features

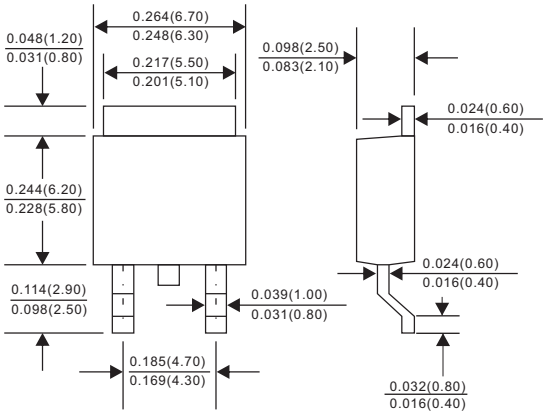
- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- **Moisture Sensitivity Level 1**

Mechanical data

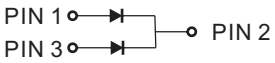
- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, TO-252 / DPAK
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any
- Weight : Approximated 0.34 gram

Package outline

DPAK



Dimensions in inches and (millimeters)



Maximum ratings and Electrical Characteristics (AT T_A=25°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} T_J = 25°C	I_R			0.5	mA
	V_R = V_{RRM} T_J = 100°C				20	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		380		pF
Storage temperature		T_{STG}	-55		+150	°C

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
SKFM1040C-D	40	28	40	0.55	-55 to +125
SKFM1045C-D	45	31.5	45		
SKFM1060C-D	60	42	60	0.70	-55 to +150
SKFM10100C-D	100	70	100	0.85	
SKFM10150C-D	150	105	150	0.90	
SKFM10200C-D	200	140	200	0.92	

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F = 5.0A

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Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

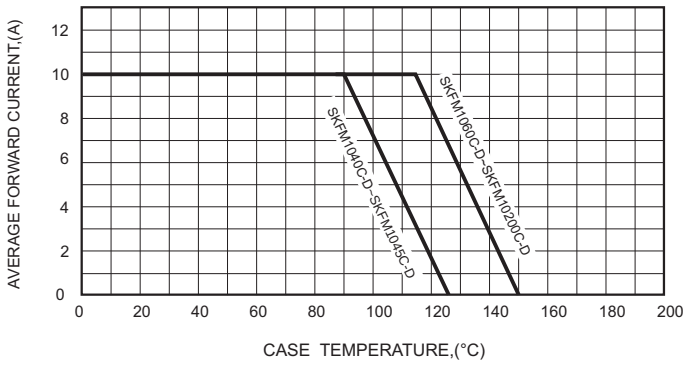


FIG.2-TYPICAL FORWARD CHARACTERISTICS

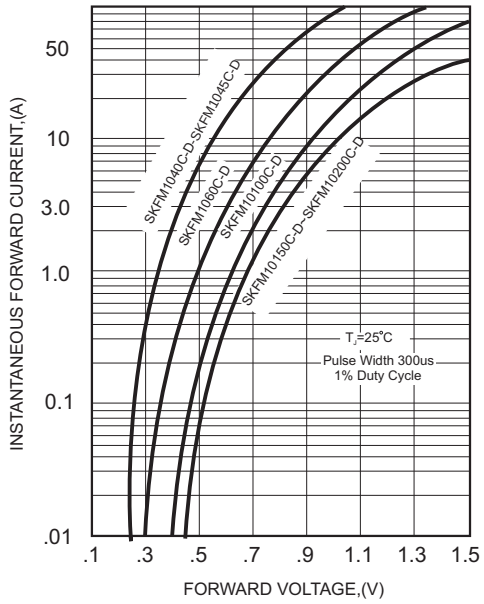


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

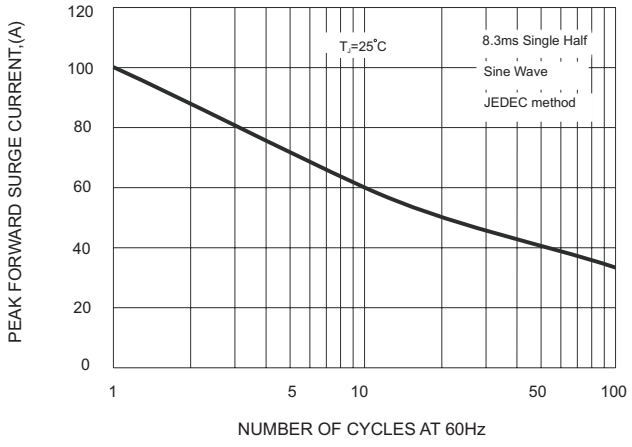


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

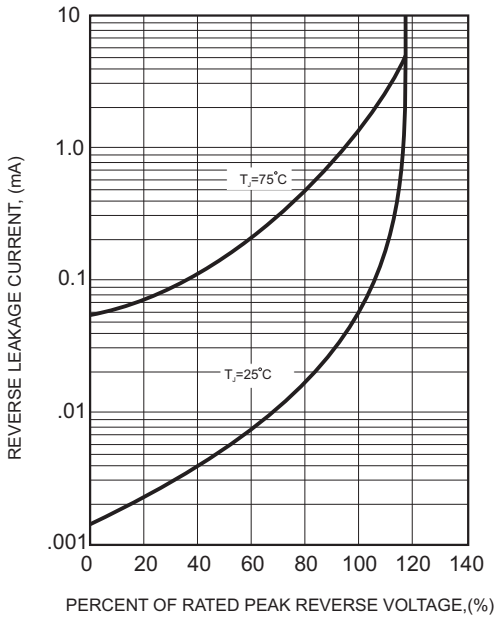
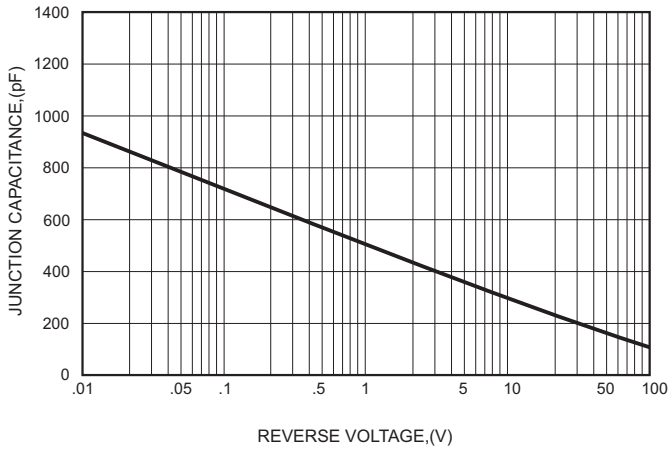


FIG.5-TYPICAL JUNCTION CAPACITANCE



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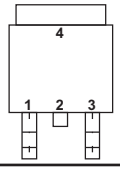
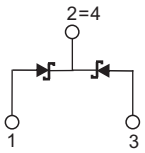
Pinning information

Simplified outline	Symbol
	

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
DPAK/TO-252	13"	3,000	8.0	6,000	335*335*43	330	350*330*360	48,000	22.0

Marking

Type number	Marking code
SKFM1040C-D-TH	SK1040
SKFM1045C-D-TH	SK1040
SKFM1060C-D-TH	SK1060
SKFM10100C-D-TH	SK10100
SKFM10150C-D-TH	SK10150
SKFM10200C-D-TH	SK10200

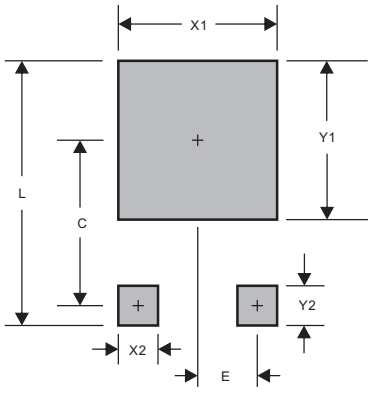
Note: D: Package code, DPAK
-T: Taping Reel

Pb-Free package is available

RoHS product for packing code suffix ”G”

Halogen free product for packing code suffix “H”

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)

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