

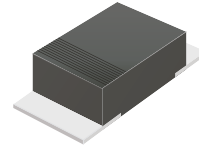
## ACGRKM4001-HF Thru. ACGRKM4007-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

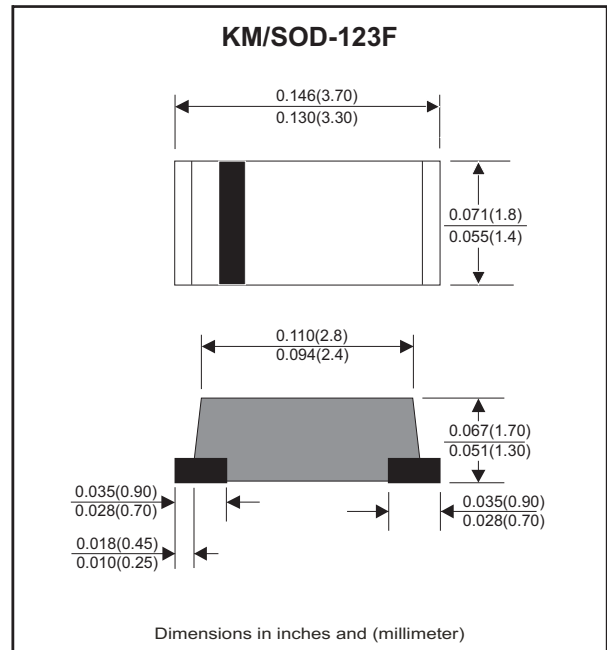


### Features

- Ideal for surface mount applications
- Easy pick and place
- Exceeds environmental standard MIL-STD-19500/228
- Low leakage current
- Comply with AEC-Q101

### Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case: Molded plastic, SOD-123F
- Terminals: Solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 0.027 grams approx.



### Circuit diagram



### Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	ACGRKM 4001-HF	ACGRKM 4002-HF	ACGRKM 4003-HF	ACGRKM 4004-HF	ACGRKM 4005-HF	ACGRKM 4006-HF	ACGRKM 4007-HF	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum averaged forward current	I <sub>O</sub>	1.0							A
Maximum Instantaneous forward voltage at I <sub>F</sub> =1.0A	V <sub>F</sub>	1.1				1.0	1.1		V
Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							A
Reverse current at rated DC blocking voltage	I <sub>R</sub>	@TA=25°C	5						μA
		@TA=100°C	50						
Thermal resistance, junction to ambient air	R <sub>θJA</sub>	60							°C/W
Operating junction temperature	T <sub>J</sub>	-55 to +150							°C
Storage temperature range	T <sub>STG</sub>	-65 to +170							°C
Junction capacitance f=1MHz and applied 4V DC reverse voltage	C <sub>J</sub>	15							pF

## Rating and Characteristic Curves (ACGRKM4001-HF Thru. ACGRKM4007-HF)

Fig.1- Current Derating Curve

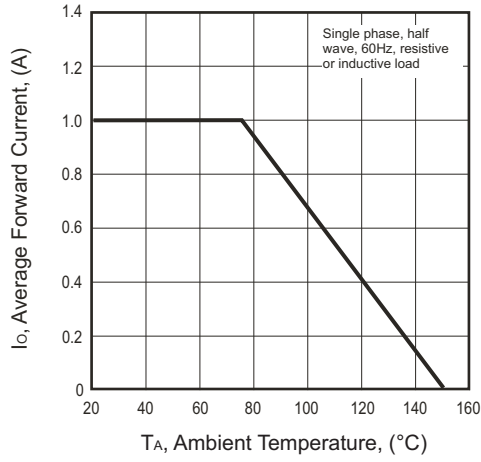


Fig.2- Forward Characteristics

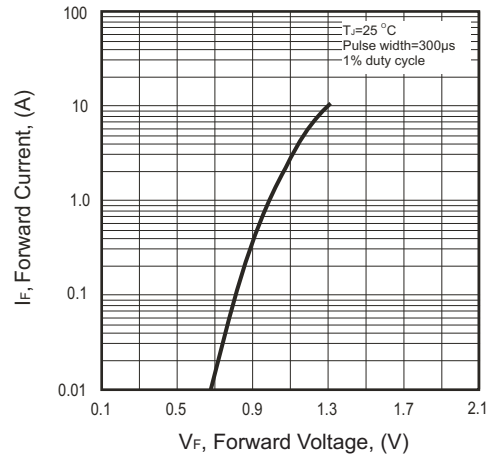


Fig.3- Non-repetitive Forward Surge Current

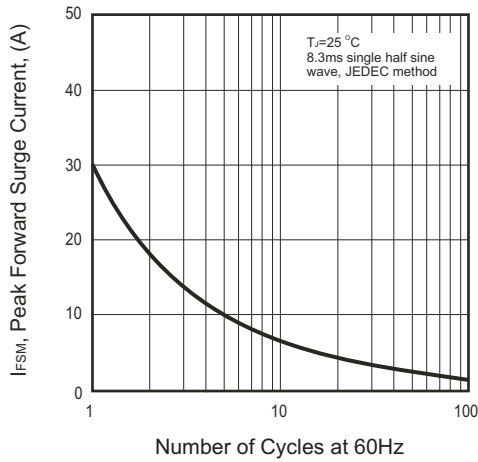


Fig.4- Reverse Characteristics

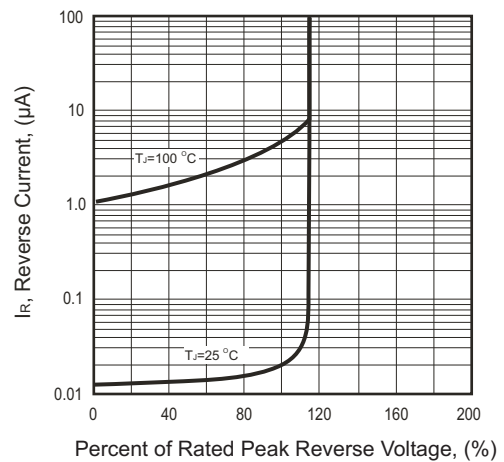
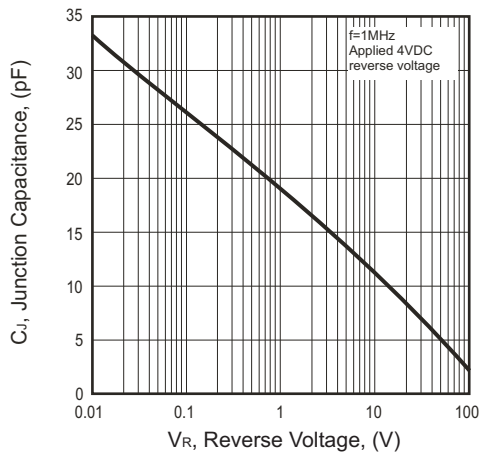
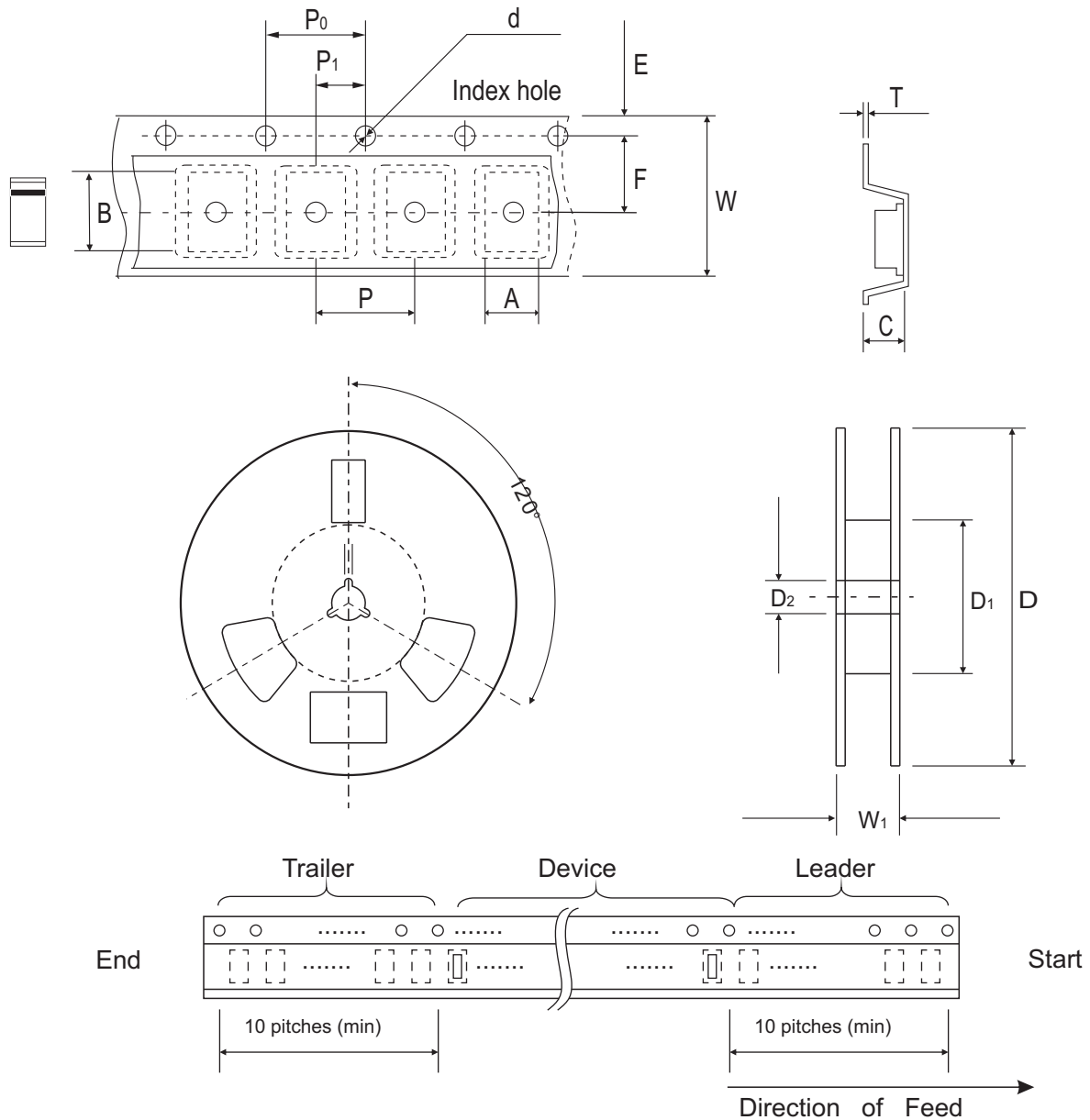


Fig.5- Junction Capacitance



## Reel Taping Specification



KM/SOD-123F	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$1.90 \pm 0.10$	$3.90 \pm 0.10$	$1.68 \pm 0.10$	$1.50 \pm 0.10$	$178 \pm 2.00$	62.0 MIN.	$13.0 \pm 0.50$
	(inch)	$0.075 \pm 0.04$	$0.154 \pm 0.04$	$0.066 \pm 0.04$	$0.059 \pm 0.004$	$7.00 \pm 0.079$	2.440 MIN.	$0.512 \pm 0.020$

KM/SOD-123F	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.10$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$0.23 \pm 0.10$	$8.00 \pm 0.30$	$11.40 \pm 1.0$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.004$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	$0.009 \pm 0.004$	$0.315 \pm 0.012$	$0.449 \pm 0.004$

## Marking Code

Part Number	Marking Code
ACGRKM4001-HF	A1
ACGRKM4002-HF	A2
ACGRKM4003-HF	A3
ACGRKM4004-HF	A4
ACGRKM4005-HF	A5
ACGRKM4006-HF	A6
ACGRKM4007-HF	A7

## Week Code

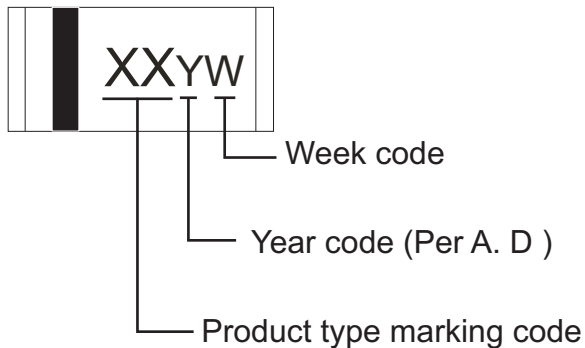
Week	Code	Week	Code	Week	Code	Week	Code
1	A	14	N	27	A	40	N
2	B	15	O	28	B	41	O
3	C	16	P	29	C	42	P
4	D	17	Q	30	D	43	Q
5	E	18	R	31	E	44	R
6	F	19	S	32	F	45	S
7	G	20	T	33	G	46	T
8	H	21	U	34	H	47	U
9	I	22	V	35	I	48	V
10	J	23	W	36	J	49	W
11	K	24	X	37	K	50	X
12	L	25	Y	38	L	51	Y
13	M	26	Z	39	M	52	Z

## Year Code

Y = Year code (Per A. D )  
(2012: 2 , 2013: 3 , .....)

## Product code printed

### - From 1~26 Weeks



For example as follows:

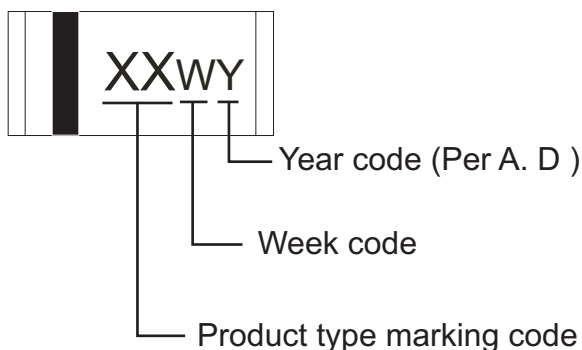
P/N: ACGRKM4005-HF

Manufacture date\_ Year: 2012 / Week:13

Product code printed: A52M



### - From 27~52 Weeks



For example as follows:

P/N: ACGRKM4005-HF

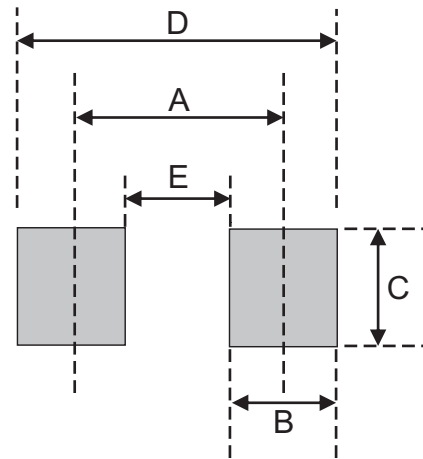
Manufacture date\_ Year: 2012 / Week: 39

Product code printed: A5M2



## Suggested PAD Layout

SIZE	KM/SOD-123F	
	(mm)	(inch)
A	3.30	0.130
B	1.40	0.055
C	1.90	0.075
D	4.70	0.185
E	1.90	0.075



## Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
KM/SOD-123F	2,500	7