

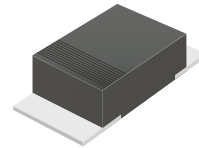
ACGRKM4001-HF Thru. ACGRKM4007-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

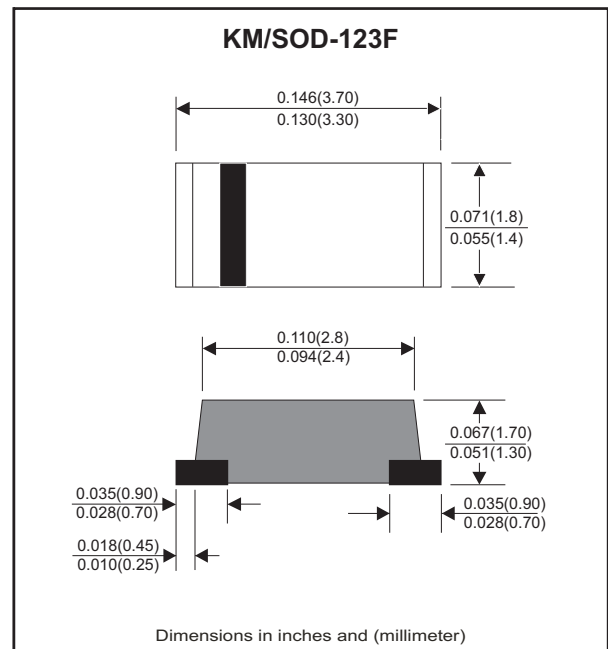


Features

- 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 T_A=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 _{RRM}	50	100	200	400	600	800	1000	V
Maximum DC blocking voltage		V _{DC}	50	100	200	400	600	800	1000	V
Maximum RMS voltage		V _{RMS}	35	70	140	280	420	560	700	V
Maximum averaged forward current		I _O	1.0							A
Maximum Instantaneous forward voltage at I _F =1.0A		V _F	1.1				1.0	1.1		V
Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	30							A
Reverse current at rated DC blocking voltage	@T _A =25°C	I _R	5							μA
	@T _A =100°C		50							
Thermal resistance, junction to ambient air		R _{θJA}	60							°C/W
Operating junction temperature		T _J	-55 to +150							°C
Storage temperature range		T _{STG}	-65 to +170							°C
Junction capacitance f=1MHz and applied 4V DC reverse voltage		C _J	15							pF

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

Fig.1- Current Derating Curve

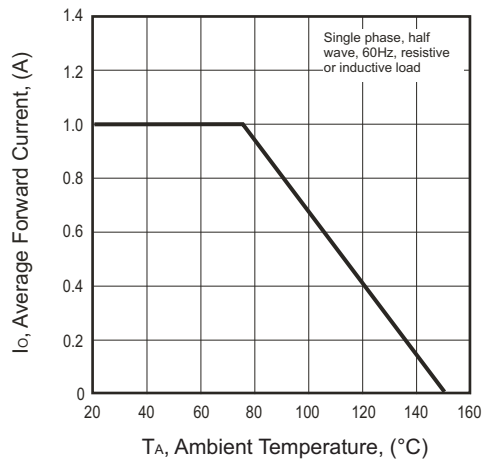


Fig.2- Forward Characteristics

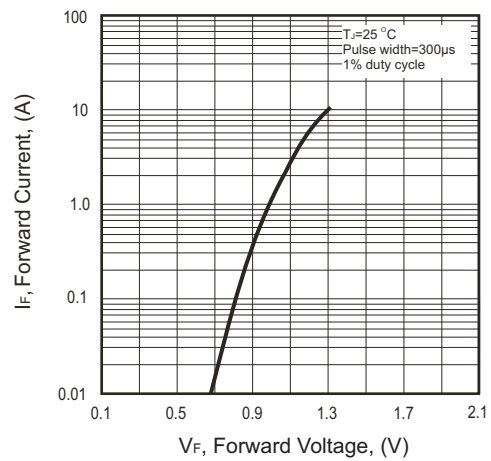


Fig.3- Non-repetitive Forward Surge Current

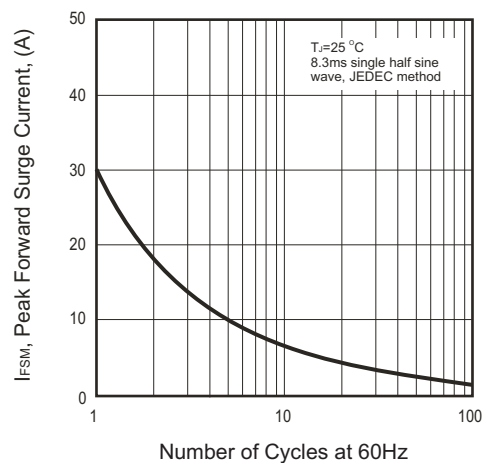


Fig.4- Reverse Characteristics

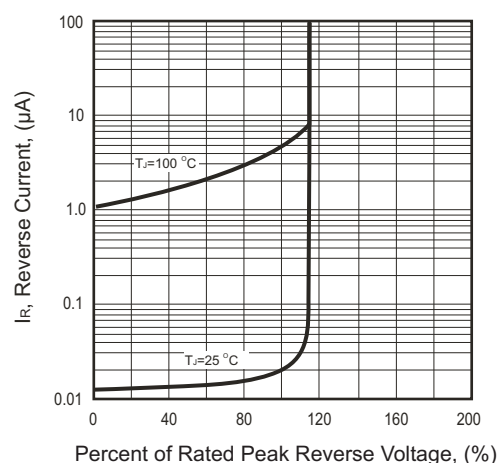
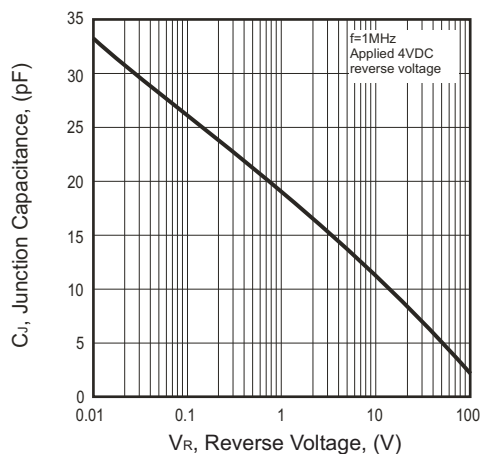
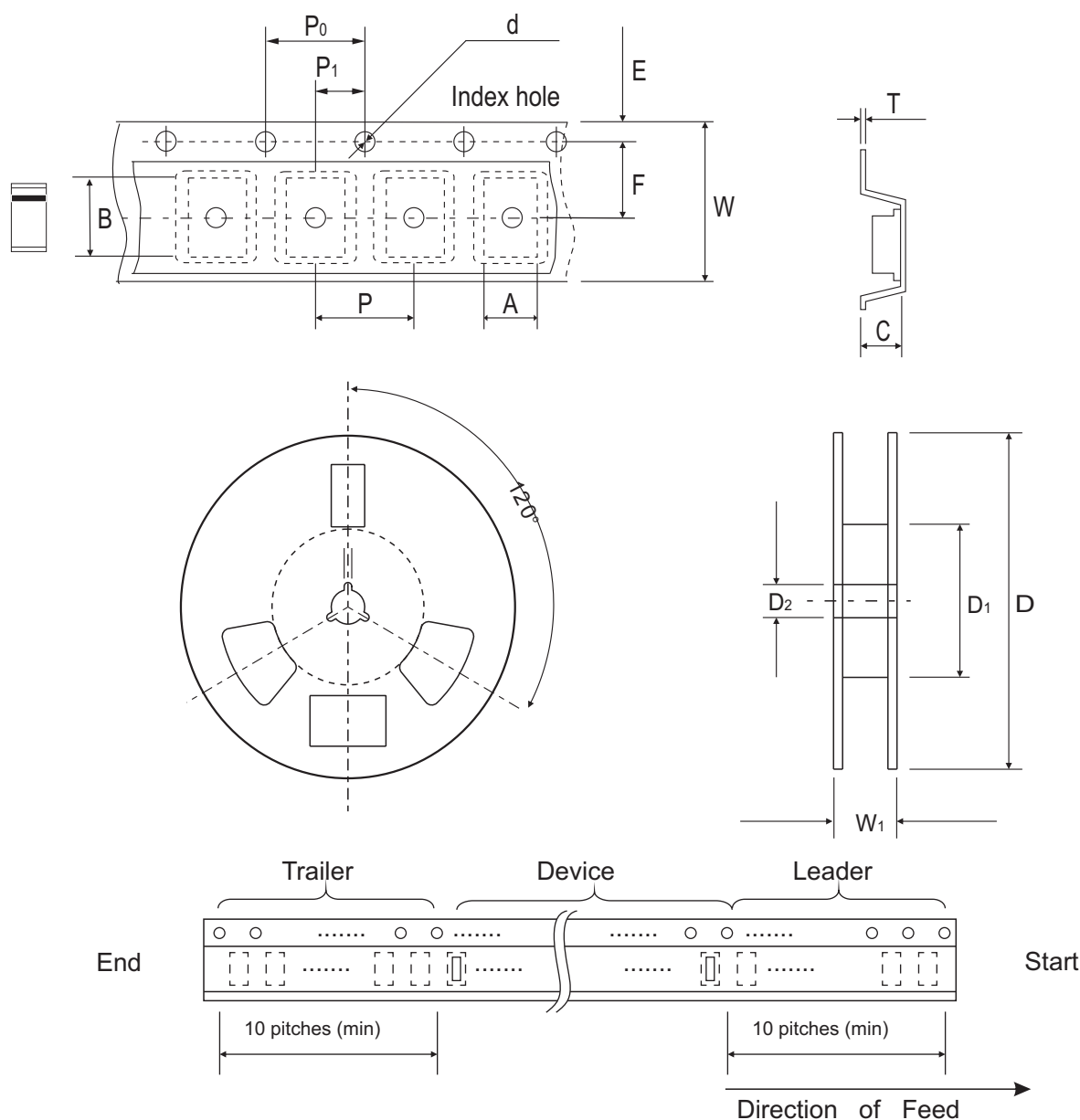


Fig.5- Junction Capacitance



Reel Taping Specification



KM/SOD-123F	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.90 ± 0.10	3.90 ± 0.10	1.68 ± 0.10	1.50 ± 0.10	178 ± 2.00	62.0 MIN.	13.0 ± 0.50
	(inch)	0.075 ± 0.04	0.154 ± 0.04	0.066 ± 0.04	0.059 ± 0.004	7.00 ± 0.079	2.440 MIN.	0.512 ± 0.020

KM/SOD-123F	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	8.00 ± 0.30	11.40 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.004	0.315 ± 0.012	0.449 ± 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

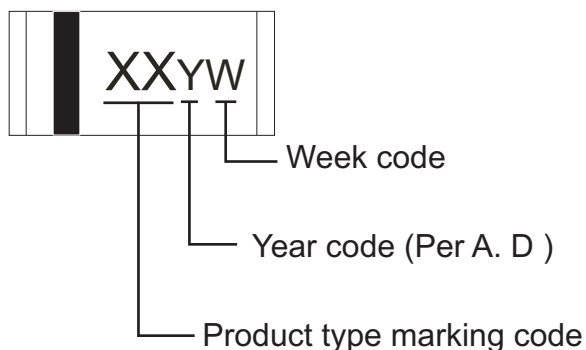
Week	Code	Week	Code	Week	Code	Week	Code
1	A	14	N	27	A	40	N
2	B	15	O	28	B	41	O
3	C	16	P	29	C	42	P
4	D	17	Q	30	D	43	Q
5	E	18	R	31	E	44	R
6	F	19	S	32	F	45	S
7	G	20	T	33	G	46	T
8	H	21	U	34	H	47	U
9	I	22	V	35	I	48	V
10	J	23	W	36	J	49	W
11	K	24	X	37	K	50	X
12	L	25	Y	38	L	51	Y
13	M	26	Z	39	M	52	Z

Year Code

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

Product code printed

- From 1~26 Weeks

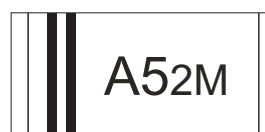


For example as follows:

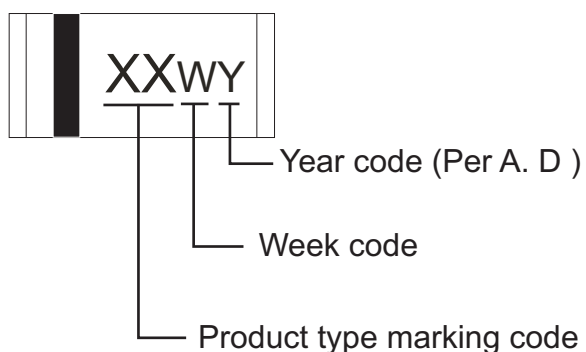
P/N: ACGRKM4005-HF

Manufacture date_ Year: 2012 / Week:13

Product code printed: A52M



- From 27~52 Weeks



For example as follows:

P/N: ACGRKM4005-HF

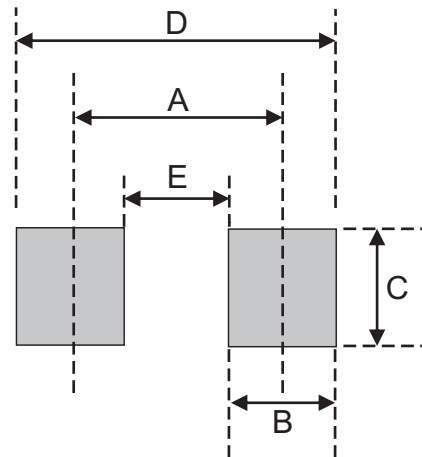
Manufacture date_ Year: 2012 / Week: 39

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