DESCRIPTION

The KSM Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

KSM Series has beens pecifically designed protect sensitive components which are connected to power 、 data and transmission lines from overvoltage caused by ESD(electrostatic discharge), CDE (Cable Discharge Events),and EFT (electrical fast transients).

FEATURES

✧IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
✧IEC61000-4-4 (EFT) 40A (5/50ηs)
✧350 Watts Peak Pulse Power per (tp=8/20μs)
✧Protects one bidirectional line or two unidirectional lines
✧Low clamping voltage
✧Working voltages : 3.3V to 36V
✧Low leakage current

MACHANICAL DATA

✧SOT-23 package
✧Flammability Rating: UL 94V-0
✧Packaging: Tape and Reel
✧High temperature soldering guaranted:260 ℃ /10s
✧Reel size: 7 inch
✧MSL 1

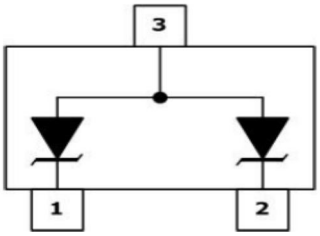
ORDERING INFORMATION

✧Package: SOT-23
✧Material: Halogen free
✧Packing: Tape & Reel
✧Quantity per reel: 3,000pcs

APPLICATIONS

✧Cell Phone Handsets and Accessories
✧Microprocessor based equipment
✧Personal Digital Assistants (PDA's)
✧Notebooks, Desktops, and Servers
✧Portable Instrumentation
✧Networking and Telecom
✧Serial and Parallel Ports.
✧Peripherals

PIN CONFIGURATION



PACKAGE OUTLINE

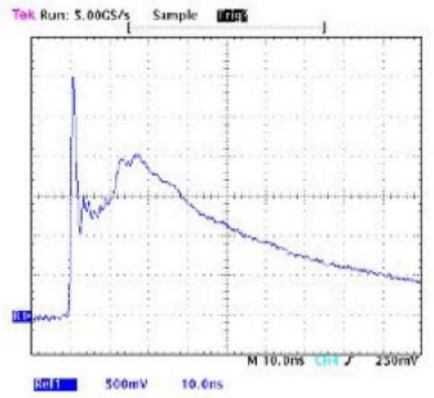
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±15 ±8	kV
P_{PP}	Peak Pulse Power (8/20μs)	350	W
T_{OPT}	Operating Temperature	-55/+150	° C
T_{STG}	Storage Temperature	-55/+150	° C
T_L	Lead Soldering Temperature	260 (10 sec.)	° C

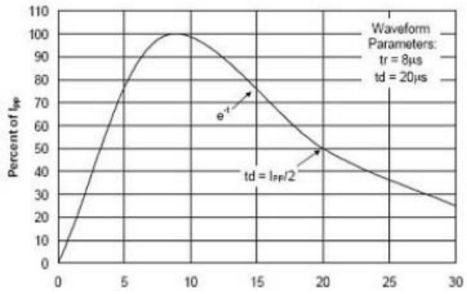
ELECTRICAL CHARACTERISTICS (Tamb=25° C)

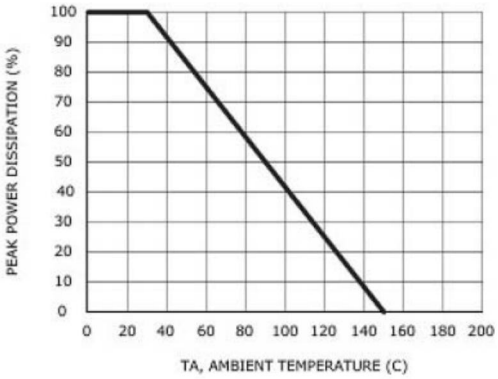
PART NUMBER	DEVICE MARKING	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	V_C@1A (V) (max.)	V_C (V) (max.)	(@A)	I_R (μA) (max.)	C_J (pF) (max.)
KSM03	M03	3.3	4	1	7.0	14	20	40	450
KSM05	M05	5	6	1	9.8	18	17	10	300
KSM08	M08	8	8.5	1	13.4	24	15	2	240
KSM12	M12	12	13.3	1	19	32	11	1	130
KSM15	M15	15	16.7	1	24	38	10	1	120
KSM18	M18	18	20	1	29	45	9	1	100
KSM20	M20	20	22.3	1	35	50	8	1	90
KSM24	M24	24	26.7	1	43	52	7	1	80
KSM36	M36	36	40	1	60	75	5	1	60

ELECTRICAL CHARACTERISTICS CURVE



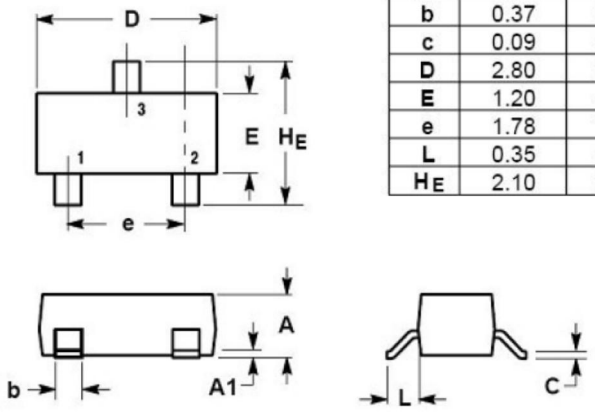
Pulse Waveform





Power Derating Curve

SOT-23 PACKAGE OUTLINE DIMENSIONS



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.015	0.018	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.40	2.64	0.083	0.094	0.104