

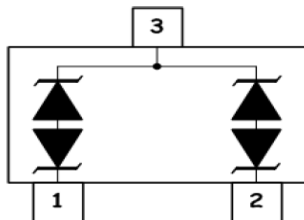
**DESCRIPTION**

The KSMxxC 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.

This series has been specifically designed to 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).

**ORDERING INFORMATION**

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

**PIN CONFIGURATION****FEATURES**

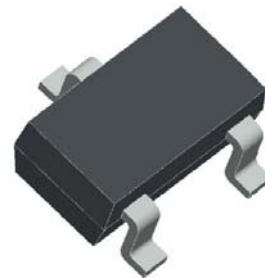
- ◇ IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact)
- ◇ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◇ 350 Watts Peak Pulse Power per (tp=8/20 $\mu\text{s}$ )
- ◇ Protects two bidirectional lines
- ◇ Low clamping voltage
- ◇ Working voltages : 3.3V to 36V
- ◇ Low leakage current

**MACHANICAL DATA**

- ◇ SOT-23 package
- ◇ Flammability Rating: UL 94V-0
- ◇ Packaging: Tape and Reel
- ◇ High temperature soldering guaranteed: 260°C /10s
- ◇ Reel size: 7 inch
- ◇ MSL 1

**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

**PACKAGE OUTLINE**

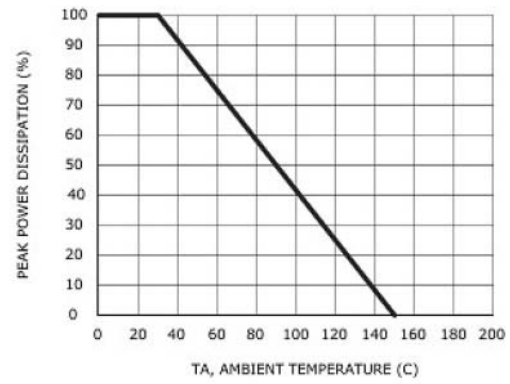
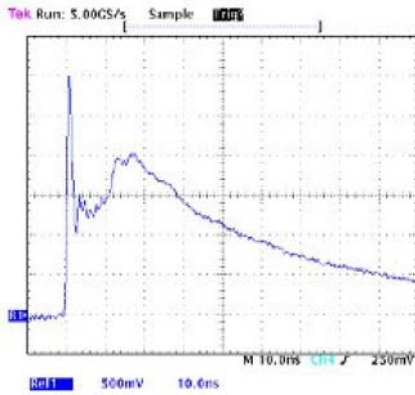
**ABSOLUTE MAXIMUM RATING**

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

**ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}$ C)**

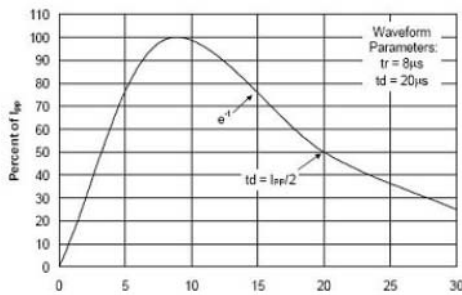
PART NUMBER	DEVICE MARKING	$V_{RWM}$ (V) (max.)	$V_B$ (V) (min.)	$I_T$ (mA)	$V_C@1A$ (V) (max.)	$V_C$ (V)		$I_R$ ( $\mu$ A) (max.)	$C_J$ (pF) (max.)
						(max.)	(@A)		
KSM03C	C03	3.3	4.0	1	7.5	16.0	20	40	450
KSM05C	C05	5.0	6.0	1	9.8	18.0	17	10	200
KSM08C	C08	8.0	8.5	1	13.4	24.0	15	2	120
KSM12C	C12	12.0	13.3	1	19.0	32.0	11	1	75
KSM15C	C15	15.0	16.7	1	24.0	38.0	10	1	68
KSM18C	C18	18.0	20.0	1	29.0	45.0	9	1	57
KSM20C	C20	20.0	22.3	1	35.0	50.0	8	1	52
KSM24C	C24	24.0	26.7	1	43.0	52.0	7	1	50
KSM36C	C36	36.0	40.0	1	60.0	75.0	4.5	1	35

**ELECTRICAL CHARACTERISTICS CURVE**

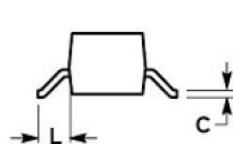
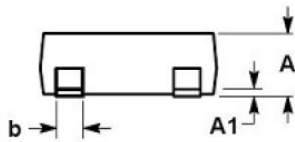
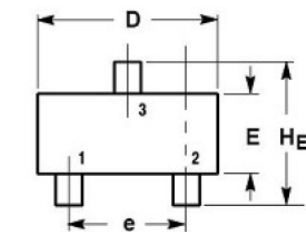


Power Derating Curve

Pulse Waveform



**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