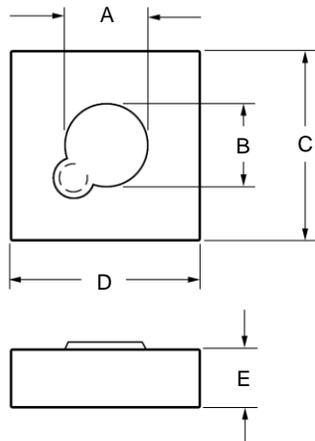


Mechanical Specifications

	mm	1/1000 Inch
A	0.10	4
B	0.080	3.5
C	0.27	10.6
D	0.27	10.6
E	0.13	5



Notes:

1. Dimension tolerance ± 0.03 (1).
2. Top contact is anode.
3. All contact metallization is gold.

Features

- Thermocompression / thermosonically bondable
- Gold metallization
- Silicon Nitride Passivation
- Uniform Electrical Characteristics
- Batch Matched Versions Available
- Planar Construction
- Ideal for Hybrid Integrated Circuits

Abstract

These Schottky chips are designed for hybrid applications at DC through K-band frequencies. The passivated planar construction of these Schottky chips provides a wide temperature range capability combined with broad bandwidth performance. A variety of chips are provided which are optimized for various analog and digital applications. Typical applications of Schottky chips are mixing, detecting, switching, gating, sampling, and wave shaping.

HSMS-0001 is specifically designed for analog and digital hybrid applications requiring thermosonic or thermocompression bonding techniques. The large bonding pad and offset junction allows easy bonding. The top metallization is a layer of gold deposited on adhesive metal layers for a tarnish-free surface that allows either thermosonic or thermocompression bonding techniques. The bottom metallization is also gold, suitable for epoxy or extectic die attach methods.

Maximum Ratings and Electrical Characteristics @ $T_a = 25^\circ\text{C}$ unless otherwise specified

Description	Value / Range	Unit
Junction Operating and Storage Temperature	-65 to +200	$^\circ\text{C}$
Power Dissipation @ $T_A = 25^\circ\text{C}$ <i>Measured in an infinite heat sink derated linearly to zero at maximum rated temperature</i>	250	mW
I_F max (1 μs pulse) <i>Operation in excess of any one of these conditions may result in permanent damage</i>	1	A

Description	Abr.	Value / Range	Unit	Test Condition
Minimum Breakdown Voltage	V_{BR}	70	V	$I_R = 10\mu\text{A}$
Maximum Forward Voltage	V_F	410	mV	$I_F = 1\text{mA}$
Maximum Forward Voltage	V_F	1.0	V	
	@ I_F	15	mV	
Maximum Capacitance	C_T	1.72	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Maximum Reverse Leakage Current	I_R	200	nA	
	@ V_R	50	V	