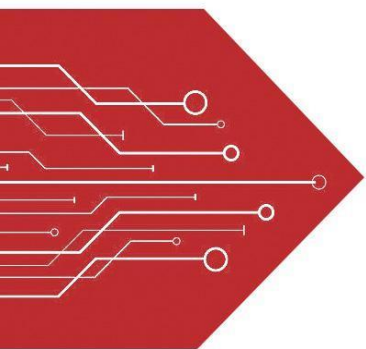


# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

## Applications

Cellular phones audio  
MP3 players  
Digital cameras  
Portable applications  
mobile telephone



DFN0603

## Features

Small Body Outline Dimensions:  
0.61 mm x 0.31 mm  
Low Body Height: 0.28 mm  
Low Leakage  
Response Time is Typically < 1 ns  
ESD Rating of Class 3 (> 16 kV) per Human Body Model  
IEC61000-4-2 Level 4 ESD Protection  
These are Pb-Free Devices  
We declare that the material of product compliance with RoHS requirements.

## ELECTRICAL CHARACTERISTICS

P/N	$V_{RWM}$ (V)	$I_{R1}(\mu A)$ @ $V_{RWM}$	$I_{R2}(\mu A)$ @ $V_R=5V$	$V_{BR}$ (V) @ $I_T$ (Note 2)		$I_T$	$V_C$ (V) @ $I_{PP} = 1 A$ (Note 3)	$V_C$ (V) @ $MAX I_{PP}$ (Note 3)	$I_{PP}(A)$ (Note 3)	$P_{PK}(W)$ (Note 3)	$C$ (pF)
	Max	Max	Max	Min	Max	mA	Max	Max	Max	Max	Max
ESD05V02D-MS	5.0	0.5	1	5.6	9.5	1.0	7.5	9.5	5	40	10

Other voltage available upon request.

$V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25°C

Surge current waveform per Figure 3.

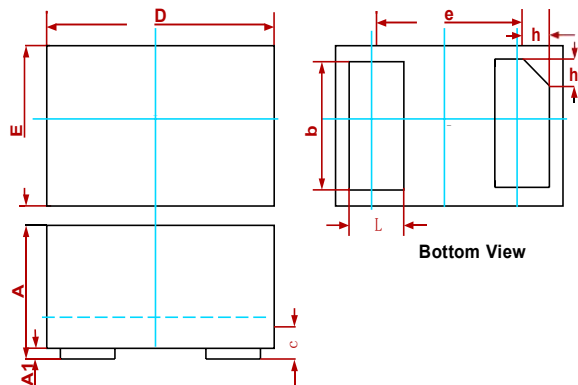
## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±25	kV
		±20	kV
ESD Voltage Per Human Body Model		16	kV
Total Power Dissipation on FR-5 Board (Note 1) @ $T_A=25^\circ C$	PD	200	mW
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

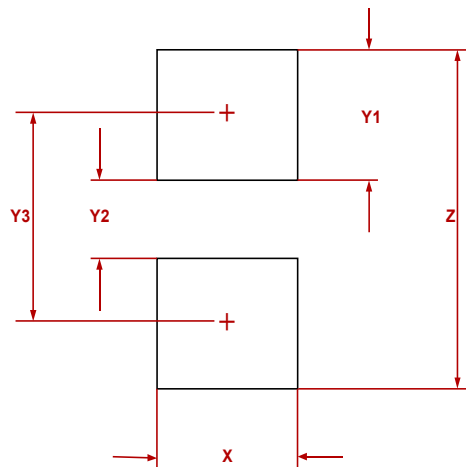
1. FR-5 = 1.0\*0.75\*0.62 in.

PACKAGE MECHANICAL DATA



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.230		0.330
A1	0.000	0.020	0.050
b	0.215	0.245	0.275
c	0.120	0.150	0.180
D	0.550	0.600	0.650
e	0.355 BSC		
E	0.250	0.300	0.350
L	0.160	0.190	0.220
h	0.079 BSC		

Suggested Pad Layout



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.30	0.012
Y1	0.25	0.010
Y2	0.15	0.006
Y3	0.40	0.016
Z	0.65	0.026

REEL SPECIFICATION

P/N	PKG	QTY
ESD05V02D-MS	DFN0603	10000

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