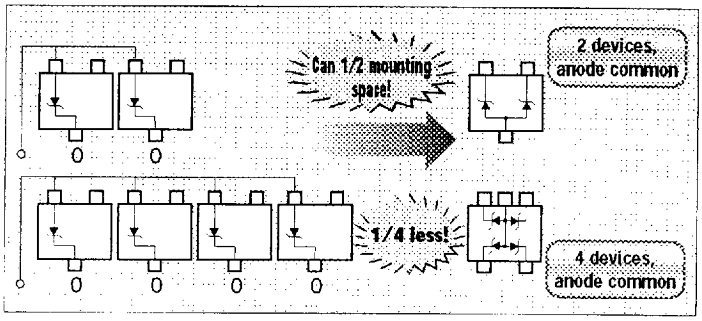
Introducing small complex zener diodes

4 devices in one package

These are perfect for ESD protection for high speed data communication

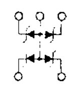
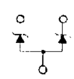
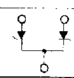
For these reasons this can slove your problems

1. External surges cause the circuit to move and ICs to break
2. Can reduce PCB space and number of parts necessary
3. Can reduce cost

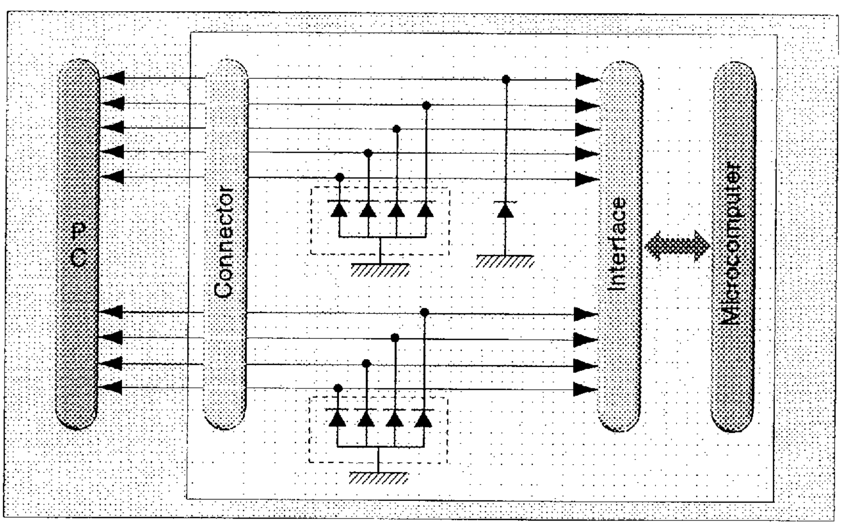


We guarantee these parts against 8KV of ESD based on the IEC1000-4-2 ESD test

Line up
U/D: Under Development

	Part number	Internal circuit	Package
U/D	UMZ 6.8E		UMD5(2012)
	FTZ 5.6E		SMD5(2916)
	FTZ 6.8E		
	FTZ 12E		
	STZ 5.6N		SMD3(2916)
	STZ 6.2N		
	STZ 6.8N		
U/D	EMZ 6.8N		EMD3(1608)
U/D	UMZ 6.8N		UMD3(2012)
	UMZ 8.2N		
	UMZ 12N		
	STZ 6.8T		SMD3(2916)
	UMZ 8.2T		UMD3(2012)

Example of an actual circuit



Zener diode (Silicon Epitaxial Planer)

UMZ 6.8E

Low Ct

APPLICATION
Voltage regulation(Common anode)

FEATURE
- Small mold type (UMD5)
- Low Ct

Mass per piece
6.8mg/pcs

ABSOLUTE MAXIMUM RATING(Ta=25°C)

Characteristic	Symbol	Limits
Power dissipation *1	P	200mA
Junction temperature	Tj	150°C
Storage temperature	Tstg	−55~150°C

*1 Total four elements

ELECTRICAL CHARACTERISTC(Ta=25°C)

Characteristic	Symbol	Test condition	Standard	
			Min.	Max.
Zener voltage	VZ	IZ=5mA	6.47V	7.14V
Reverse current	IR	VR=3.5V	—	0.5μA
Dynamic impedance	ZZ	IZ=5mA	—	40Ω

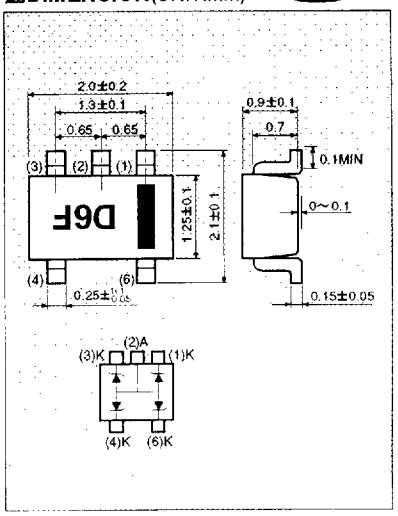
*Please pay attention to static electricity when handling.

OTHER

Characteristic	Standard 1		IEC-1000-4-2	
Equipment	Charge discharge Capacitance	200pF ±10%	Charge discharge Capacitance	150pF
Composition	Discharge resistance	400Ω ±10%	Discharge resistance	330Ω
Criterion	Repeat by 5 times		Repeat by 10 times	
	No combustion and smoking	: ±25KV	No erromious operation	
	No element destruction	: ±20KV	Contact	: ±KV
	No erromious operatio	: ±8KV	In air	: ±KV

Characteristic	Test condition	Typical Data
Junction Capacitance	f=1MHz, VR=5V	9pF

DIMENSION(UNIT:mm)



Zener diode (Silicon Epitaxial Planer)

EMZ 6.8N

Low Ct

APPLICATION
Voltage regulation(Common anode)

FEATURE
- Ultra small mold type (EMD3)
- Low Ct

Mass per piece
2mg/pcs

ABSOLUTE MAXIMUM RATING(Ta=25°C)

Characteristic	Symbol	Limits
Power dissipation *1	P	200mA
Junction temperature	Tj	150°C
Storage temperature	Tstg	−55~150°C

*1 Total four elements

ELECTRICAL CHARACTERISTC(Ta=25°C)

Characteristic	Symbol	Test condition	Standard	
			Min.	Max.
Zener voltage	VZ	IZ=5mA	6.47V	7.14V
Reverse current	IR	VR=3.5V	—	0.5μA
Dynamic impedance	ZZ	IZ=5mA	—	40Ω

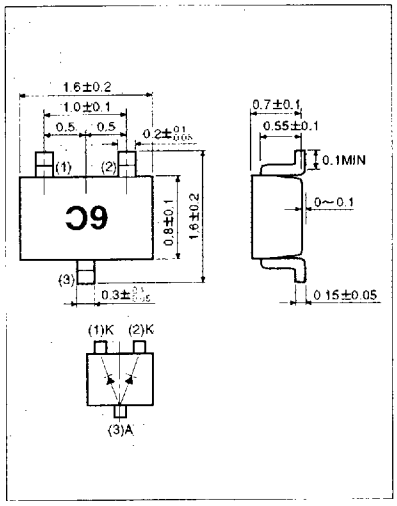
*Please pay attention to static electricity when handling.

OTHER

Characteristic	Standard 1		IEC-1000-4-2	
Equipment	Charge discharge Capacitance	200pF ±10%	Charge discharge Capacitance	150pF
Composition	Discharge resistance	400Ω ±10%	Discharge resistance	330Ω
Criterion	Repeat by 5 times		Repeat by 10 times	
	No combustion and smoking	: ±25KV	No erromious operation	
	No element destruction	: ±20KV	Contact	: ±KV
	No erromious operatio	: ±8KV	In air	: ±KV

Characteristic	Test condition	Typical Data
Junction Capacitance	f=1MHz, VR=5V	9pF

DIMENSION(UNIT:mm)



Zener diode (Silicon Epitaxial Planer)

UMZ 6.8N

Low Ct

APPLICATION
Voltage regulation
(Common anode dual chip)

FEATURE
- Small mold type (UMD3)
- Low Ct

Mass per piece
6mg/pcs

ABSOLUTE MAXIMUM RATING(Ta=25°C)

Characteristic	Symbol	Limits
Power dissipation *1	P	200mA
Junction temperature	Tj	150°C
Storage temperature	Tstg	−55~150°C

*1 Total four elements

ELECTRICAL CHARACTERISTC(Ta=25°C)

Characteristic	Symbol	Test condition	Standard	
			Min.	Max.
Zener voltage	VZ	IZ=5mA	6.47V	7.14V
Reverse current	IR	VR=3.5V	—	0.5μA
Dynamic impedance	ZZ	IZ=5mA	—	40Ω

*Please pay attention to static electricity when handling.

OTHER

Characteristic	Standard 1		IEC-1000-4-2	
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	No erromious operatio	: ±8KV	In air	: ±KV

Characteristic	Test condition	Typical Data
Junction Capacitance	f=1MHz, VR=5V	9pF

DIMENSION(UNIT:mm)