

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## AZ1143-04F-MS

Product specification

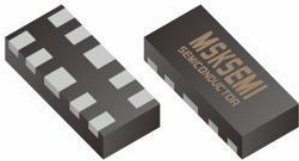
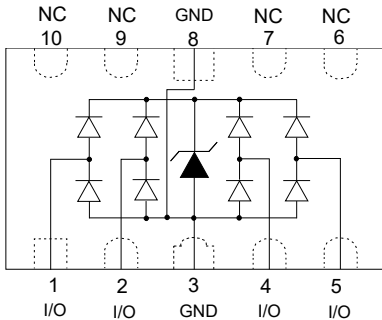

## Features

- 150 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Transient protection for high speed data lines to IEC 61000-4-2 (ESD)  $\pm 25kV$  (air),  $\pm 25kV$  (contact) IEC 61000-4-4 (EFT) 40A(5/50ns)
- Working voltages :3.3V
- Protects two or four I/O lines
- Ultra Low capacitance:0.3pf (typical between I/O channel)
- Low operating and clamping voltages
- Solid-state silicon avalanche technology

## Applications

- High Definition Multi-Media Interface (HDMI)
- USB 1.1/2.0/3.0/OTG
- IEEE 1394 Firewire Ports
- Projection TV Monitors and Flat Panel Displays
- Notebook Computers
- Set Top Box

## Reference News

PACKAGE OUTLINE	Schematic & PIN Configuration	Marking
 <p>DFN2510-10</p>		

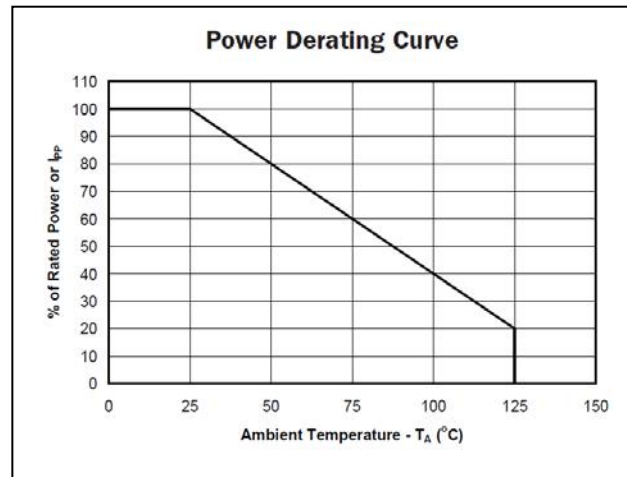
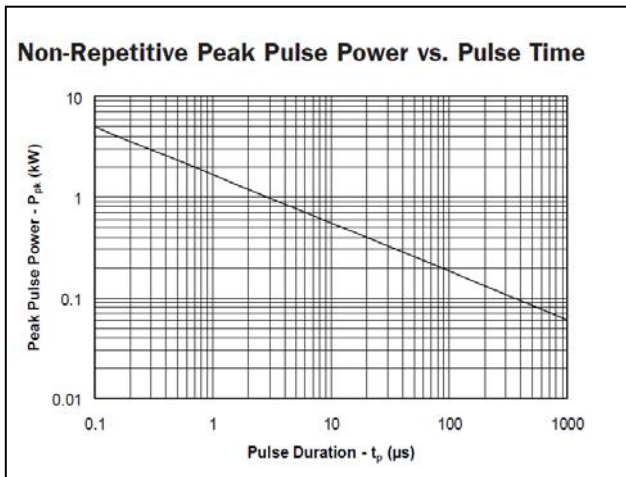
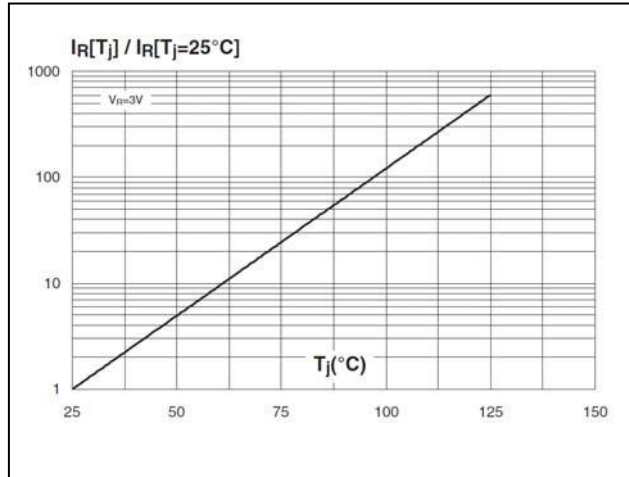
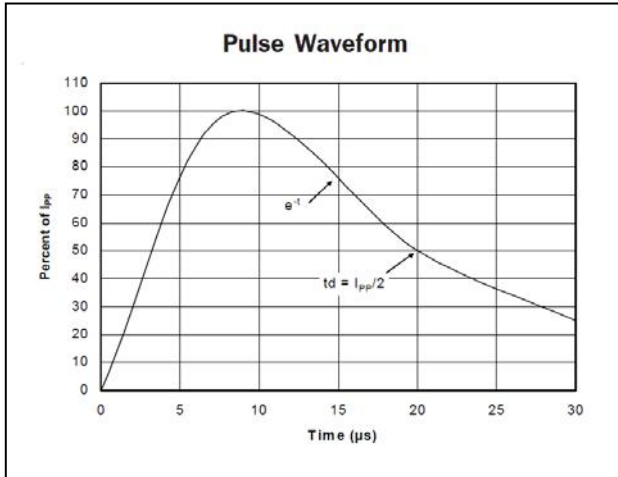
**Maximum Rating @  $T_a = 25^{\circ}\text{C}$  unless otherwise specified**

Symbol	Parameter	Ratings	Units
$P_{PK}$	Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )	150	Watts
$T_L$	Lead Soldering Temperature	260( 10sec.)	$^{\circ}\text{C}$
$T_J$	Operating Temperature	-55 to +125	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

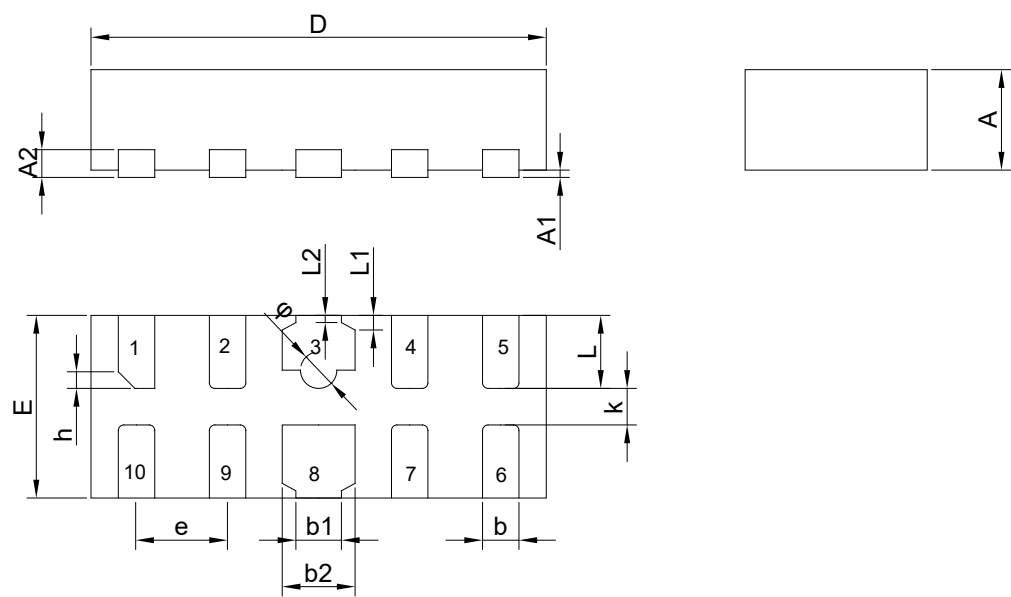
**Electrical Characteristics @  $T_a = 25^{\circ}\text{C}$  unless otherwise**

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
$V_{RWM}$	Reverse Working Voltage	Any I/O to Ground			3.3	V
$V_{BR}$	Reverse Breakdown Voltage	$I_r = 1\text{mA}$ , Any I/O to Ground	4.5			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 3 \sim 3\text{V}$ , Any I/O to Ground			1	$\mu\text{A}$
$V_F$	Diode Forward Voltage	$I_F = 15\text{mA}$		0.85	1.2	V
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$ , any I/O pin to Ground			9.8	V
		$I_{PP} = 5\text{A}$ , $t_p = 8/20\mu\text{s}$ , any I/O pin to Ground			15	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , between I/O pins		0.25	0.3	pF
		$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , any I/O pin to Ground		0.5	0.6	pF

Typical Characteristics @  $T_a = 25^\circ\text{C}$  unless otherwise specified



Dimension (DFN2510)



Dimensions in Millimeter							
Symbol	Min.	Nom.	Max.	Symbol	Min.	Nom.	Max.
A	0.500	0.550	0.600	D	2.450	2.500	2.550
A1	0.00	/	0.05	E	0.950	1.00	1.050
A2	0.122	0.152	0.200	e	0.450	0.500	0.550
b	0.150	0.200	0.250	h	0.080	0.120	0.150
b1	0.200	0.250	0.300	k	0.150	0.200	0.250
b2	0.350	0.400	0.450	L	0.350	0.400	0.450
L1	0.075 REF			L2	0.05 REF		
φ	0.150	0.200	0.250				

REEL SPECIFICATION

P/N	PKG	QTY
AZ1143-04F-MS	DFN2510-10	3000

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