



General Description

The AFE2075FB is the single array voltage-stabilized transistor voltage, it features high ESD, low leakage, fast response and excellent voltage clamping capability.

Features

- Single-channel ESD protection
- Provide ESD protection meeting IEC61000-4-2(ESD)
 - ±30 KV air discharge
 - ±30 KV contact discharge
- Low clamping voltage
- 5V low operating voltage
- Reliable silicon device avalanche breakdown structure
- Small Body Outline: 1.0 x 0.6 x 0.5-0.62mm

Pin Description (FBP-02C)



Application

- Cell phone handsets and accessories
- Personal Digital Assistants (PDAs)
- Portable Instrumentation
- Digital Cameras
- MP3/MP4/PMP Players

Ordering Information

Part Ordering No.	Part Marking	Package	Unit	Quantity
AFE2075FBBP02RG	BM	FBP-02C	Tape & Reel	10000 EA

※ B Parts Code

※ M Month Code

※ AFE2075FBBP02RG : 7" Tape & Reel ; Pb- Free ; Halogen- Free



Absolute Maximum Ratings

(TA=25°C Unless otherwise noted)

Parameter	Symbol	Typical	Unit
Maximum Peak Pulse Power (tp = 8/20 μs)	P _{PP}	107	W
Maximum Peak Pulse Current (tp = 8/20 μs)	I _{PP}	8.7	A
ESD Per IEC 61000– 4 – 2 (Air) ESD Per IEC 61000 – 4 – 2 (Contact)	V _{PP}	±30 ±30	KV
Storage temperature range	T _{stg}	-55 ~ +150	°C
Operating temperature range	Top	-55 ~ +125	°C

Electrical Characteristics

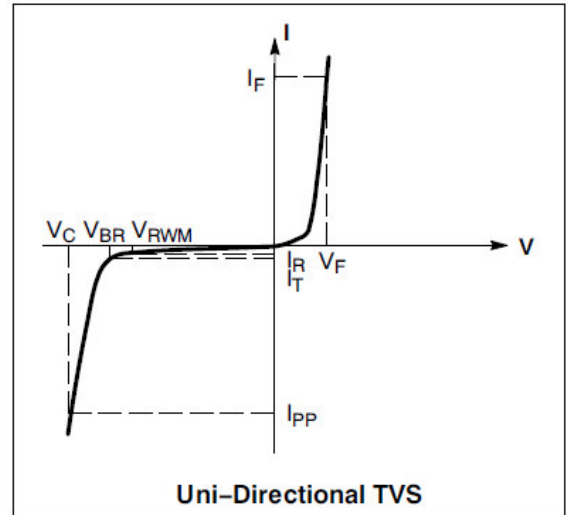
(TA=25°C Unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ	Max.	Unit
Reverse Working Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}	I _T = 1mA	6.2			V
Reverse Leakage Current	I _R	V _{RWM} = 5V			1	μA
Negative Clamping Voltage	V _{C1}	I _{PP} = 8.7A; tp=8/20us			12.3	V
Junction Capacitance	C _{j2}	V _R =0V; f=1MHz; Any I/O pin to GND			65	pF



Electronics Parameter

Symbol	Parameter
V _{rwm}	Peak Reverse Working Voltage
I _r	Reverse Leakage Current @ V _{rwm}
V _{br}	Breakdown Voltage @ I _t
I _t	Test Current
I _{pp}	Maximum Reverse Peak Pulse Current
V _c	Clamping Voltage @ I _{pp}
P _{pk}	Peak Power Dissipation
C	Junction Capacitance
I _f	Forward Current
V _f	Forward Voltage @ I _f



Typical Characteristics

Fig.1. ESD clamp voltage
Positive 8KV IEC61000-4-2 contact discharge

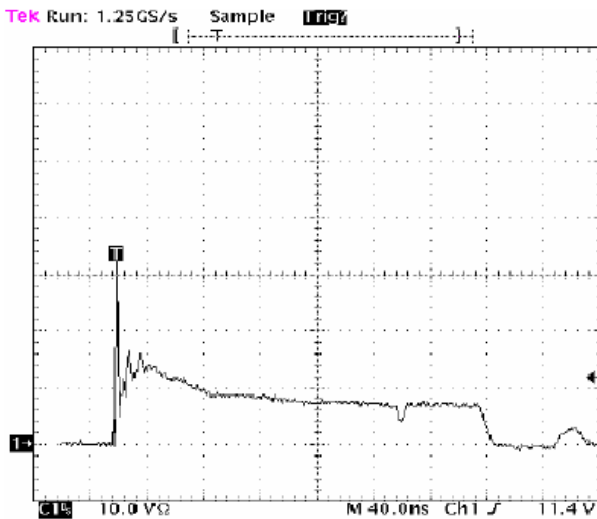
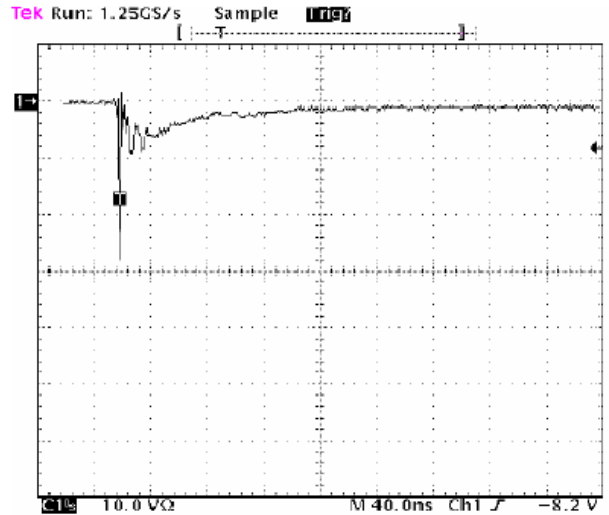
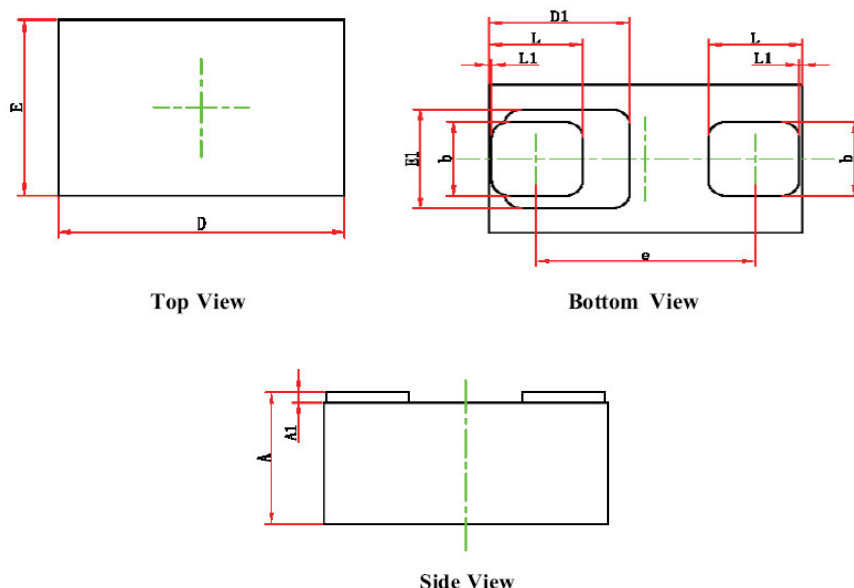


Fig.2. ESD clamp voltage
Negative 8KV IEC61000-4-2 contact discharge





Package Information (FBP-02C)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.010	0.070	0.000	0.003
D	0.95	1.050	0.037	0.011
E	0.550	0.650	0.022	0.026
D1	0.450REF		0.018REF	
E1	0.400REF		0.016REF	
b	0.275	0.325		0.013
e	0.675	0.725		0.029
L	0.275	0.325		0.013
L1	0.010REF		0.000REF	

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