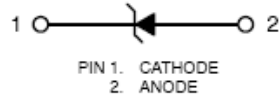
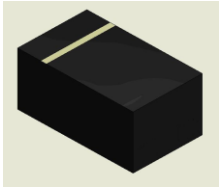
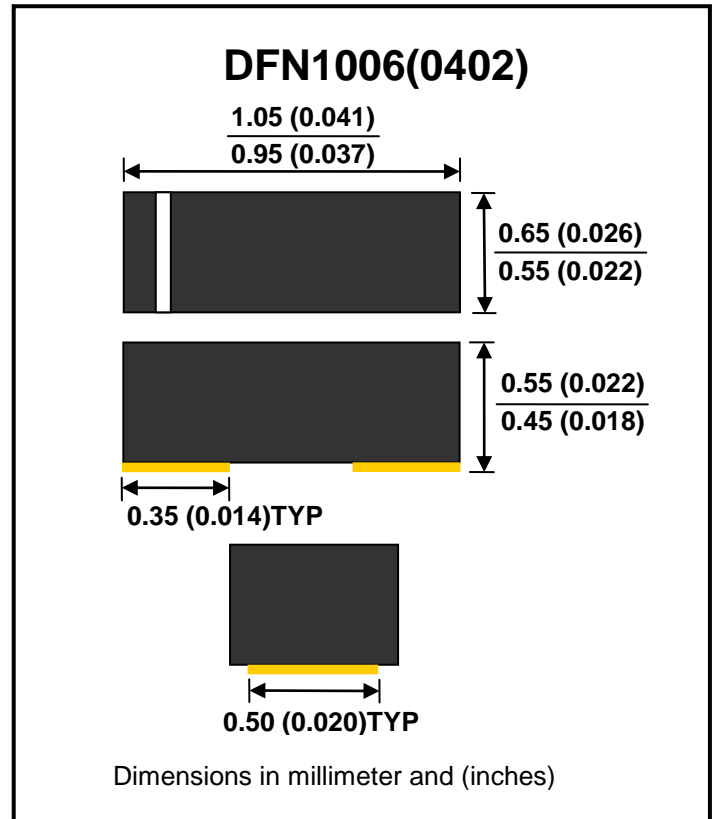


**ESDQR5V0U****5V Uni-directional ESD****Features**

- Meet IEC61000-4-2 (ESD)±15kV (air),±8kV (contact)
- Meet IEC61000-4-4 (EFT) rating. 40A (5/50µs)
- Protects single I/O lines
- Working Voltage : 5V
- Low leakage current
- Low operating and clamping voltages

**MECHANICAL CHARACTERISTICS**

- Case: DFN1006(0402) mold package
- Terminal: Sn/Au plated, solderable per MIL-STD-750, method 2026
- Mounting position: Any
- Marking Code: Cathode band & 5U
- Weight: 0.001 gram(approx.).

**Maximum Rating And Electrical Characteristics (at ta=25°C unless otherwise noted)**

Parameter	Condition	Symbol	Min	Typ	Max	Unit
Peak Pulse Power ( tp=8/20us )		PpK		135		W
Maximum Peak Pulse Current ( tp=8/20us )		Ipp		10		A
ESD per IEC 61000-4-2 (Air)		Vpp		±15		kV
ESD per IEC 61000-4-2 (Contact)			±8		kV	
Operating Junction Temperature		Tj		-55~125		°C
Storage Temperature		Tstg		-55~150		°C
Lead Soldering Temperature		TL		260		°C
Reverse Stand-Off Voltage		VRWM			5	V
Reverse Breakdown Voltage	It = 1mA	VBR	6.0		7.6	V
Reverse Leakage Current	VRWM = 5V	IR			1	µA
Clamping Voltage	Ipp = 10A , tp = 8/20 us	Vc			13.5	V
Junction Capacitance	VR=0V , f=1MHz	Cj			80	pF



Typical Characteristics

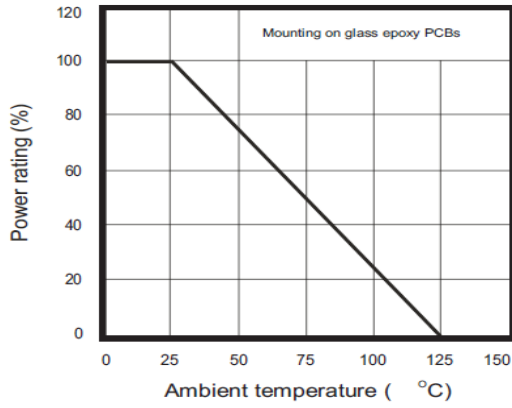


Fig 1 : Junction Capacitance V.S Reverse Voltage Applied

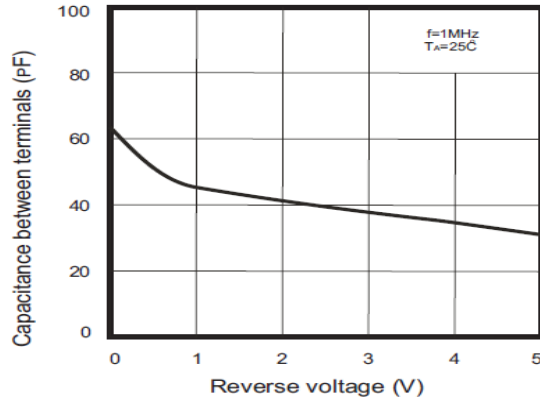


Fig 2 : Peak Plus Power V.S Exponential Plus Duration

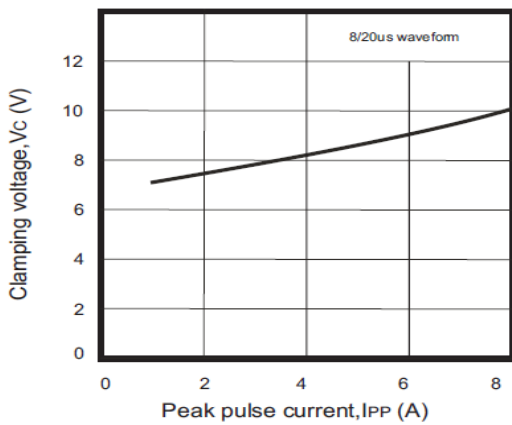
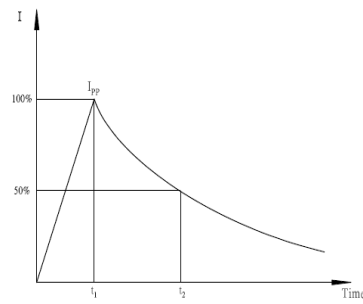


Fig 3 : Clamping Voltage VS Peak Pulse Current

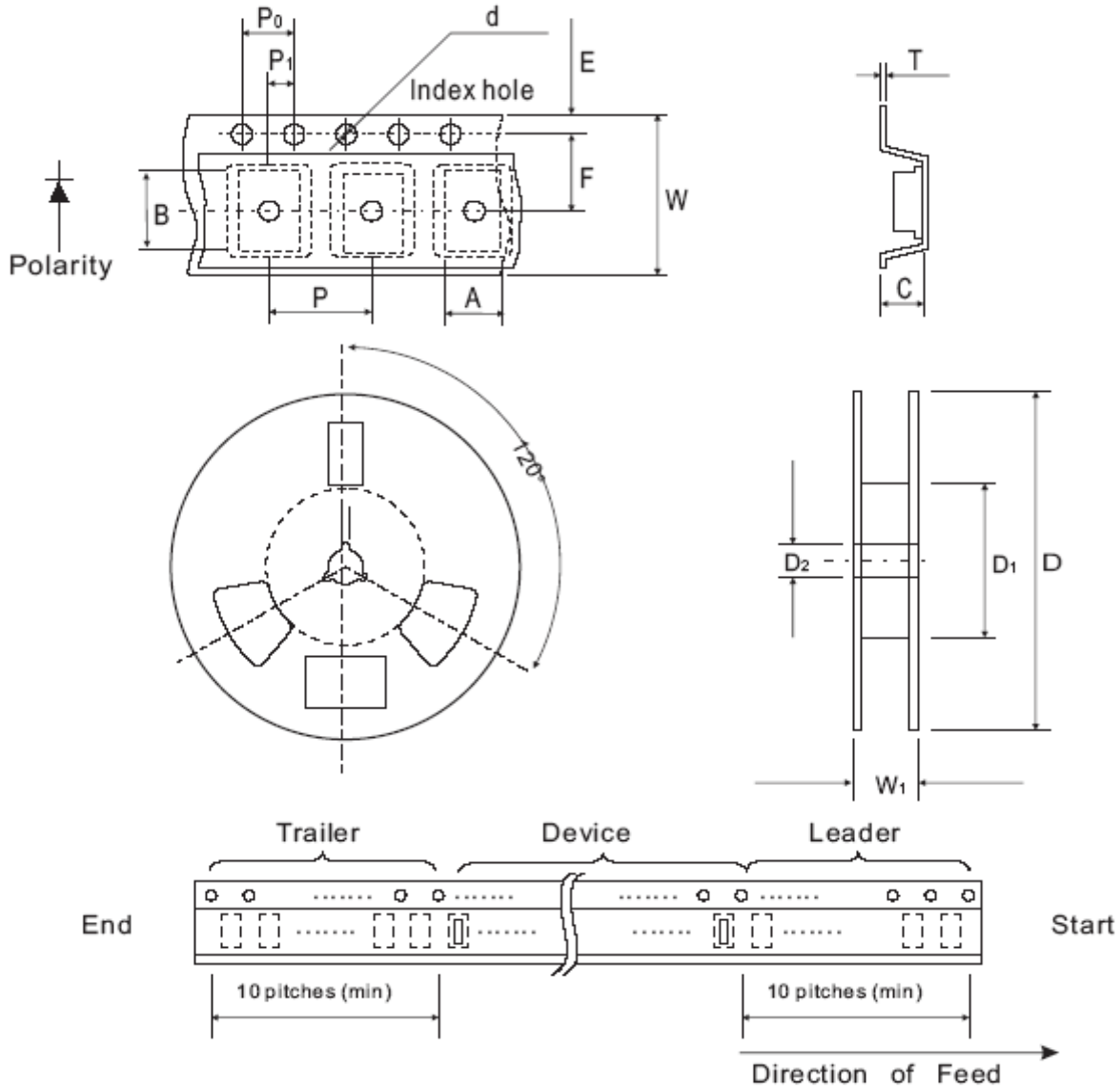


$t_r$  = 上升时段  
 $t$  = Pulse Width (波寬)  
 $t_f$  ~  $t$  = 下降时段  
 $I_{pp}$  = Peak Value (峰值電流)  
 $10/1000 \mu s = t_f / t$

Fig 4 : Forward Voltage Drop V.S Peak Forward Current



Packing Specification



Tape & Reel Dimensions

Package	Unit	A	B	C	d	D	D1	D2
DFN1006	mm	0.67±0.10	1.12±0.10	0.60±0.10	1.50±0.10	178±1	60MIN	13.0±0.20
	inch	0.026±0.004	0.044±0.004	0.024±0.004	0.060±0.004	7.008±0.04	2.362MIN	0.512±0.008

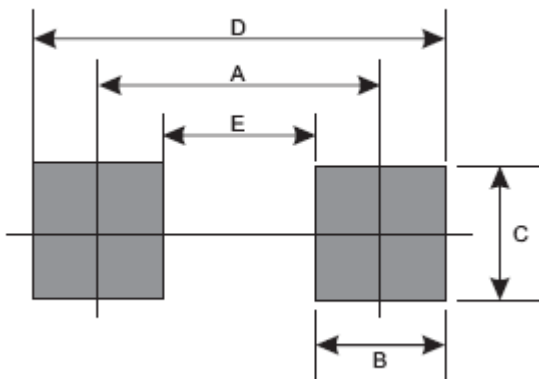
package	Unit	E	F	P	P0	P1	T	W	W1
DFN1006	mm	1.75±0.10	3.5±0.10	4.0±0.10	4.0±0.10	2.0±0.10	0.22+0.03	8.0±0.10	13.5MAX
	inch	0.069±0.004	0.138±0.004	0.157±0.004	0.157±0.004	0.079±0.004	0.009±0.002	0.315±0.004	0.531MAX



Standard Package

Package	Reel Size	Qty/Reel
DFN1006	7"	5,000 pcs

RECOMMENDED SOLDERING FOOTPRINT



Reflow Soldering

Product Size	Dimension/ mm				
	A	B	C	D	E
DFN1006	0.750	0.500	0.700	1.250	0.250
	0.030"	0.020"	0.028"	0.049"	0.010"

Marking Code

Part Number	Marking Code
ESDQR5V0U	5U



DISCLAIMERS

These products are not designed for use in applications where any failure or malfunction may result in personal injury, death or severe property or environmental damage such as medical, military, aircraft, space or life support equipments.