Maximum Ratings at T_A = 25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
ESD contact/ air discharge[1)]	V_{ESD}	20	kV
Peak pulse current (t_p = 8 / 20 µs)[2)]	I_{pp}	3	A
Operating temperature range	T_{op}	-40...125	°C
Storage temperature	T_{stg}	-65...150	

Electrical Characteristics at T_A = 25°C, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Characteristics -					
Reverse working voltage	V_{RWM}	-	-	5.3	V
Breakdown voltage $I_{(BR)}$ = 1 mA, from pin 1 to 3	$V_{(BR)}$	6	-	-	
Reverse current V_R = 5.3 V, from pin 1 to 3	I_R	-	< 1	50	nA
Clamping voltage	V_{CL}				V
I_{PP} = 1 A, t_p = 8/20µs[2)], from 1/2 to 3		-	10	13	
I_{PP} = 3 A, t_p = 8/20µs[2)], from 1/2 to 3		-	12	15	
Forward clamping voltage	V_{FC}				
I_{PP} = 1 A, t_p = 8/20µs[2)], from 3 to 1/2		-	2	4	
I_{PP} = 3 A, t_p = 8/20µs[2)], from 3 to 1/2		-	4	6	
Line capacitance, V_R = 0 V, f = 1 MHz	C_T				pF
from pin 1/2 to 3[3)]		-	0.4	0.6	
from pin 1 to 2, pin 3 not connected		-	0.2	0.4	

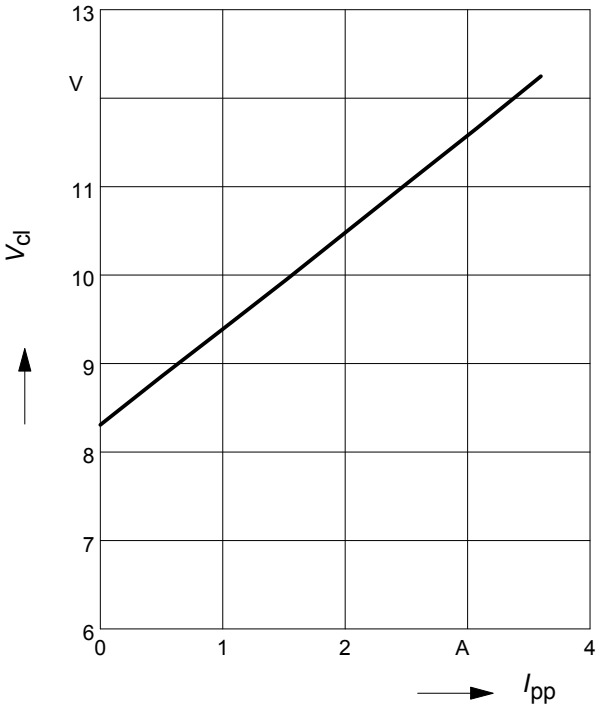
[1] V_{ESD} according to IEC61000-4-2

[2] I_{pp} according to IEC61000-4-5

[3] Total capacitance line to ground

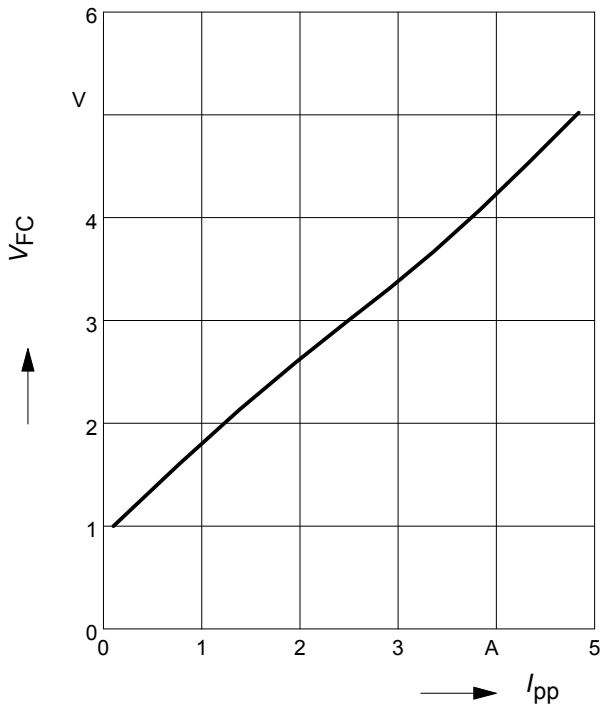
Clamping voltage, $V_{cl} = f(I_{pp})$

t_p = 8 / 20 µs, from pin 1/2 to 3



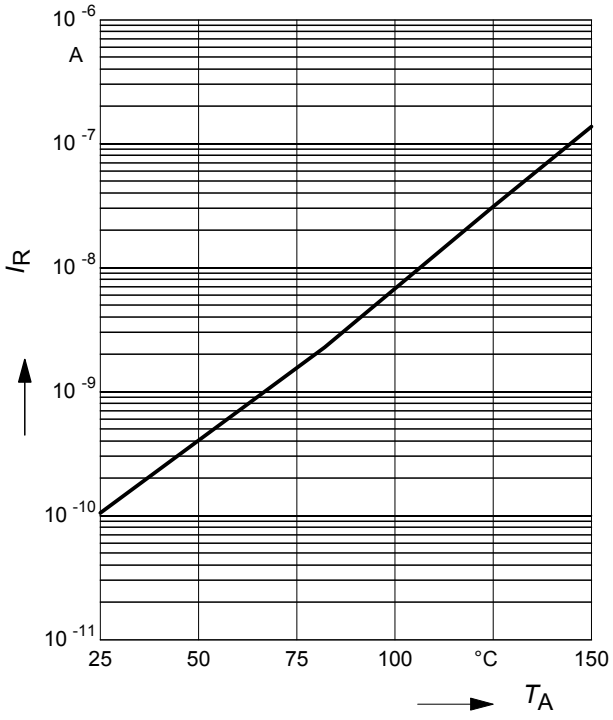
Forward clamping voltage $V_{FC} = f(I_{PP})$

t_p = 8 / 20 µs, from pin 3 to 1/2



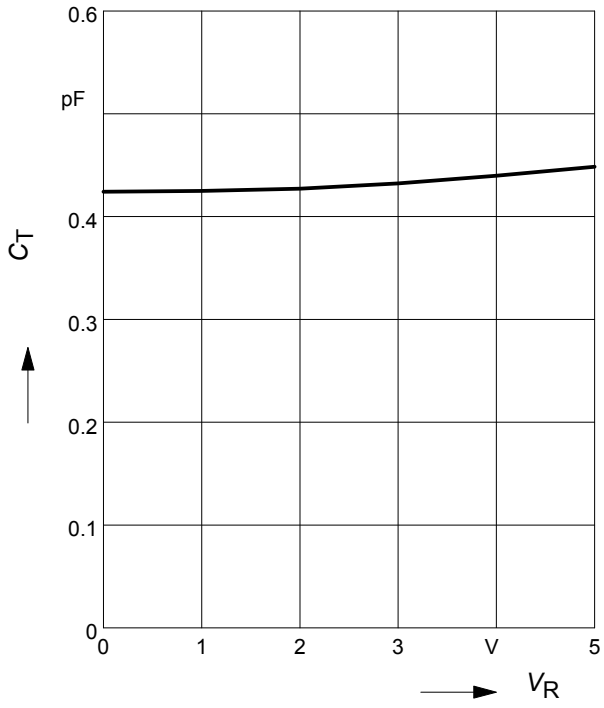
Reverse current $I_R = f(T_A)$

V_R = Parameter, from pin 1/2 to 3



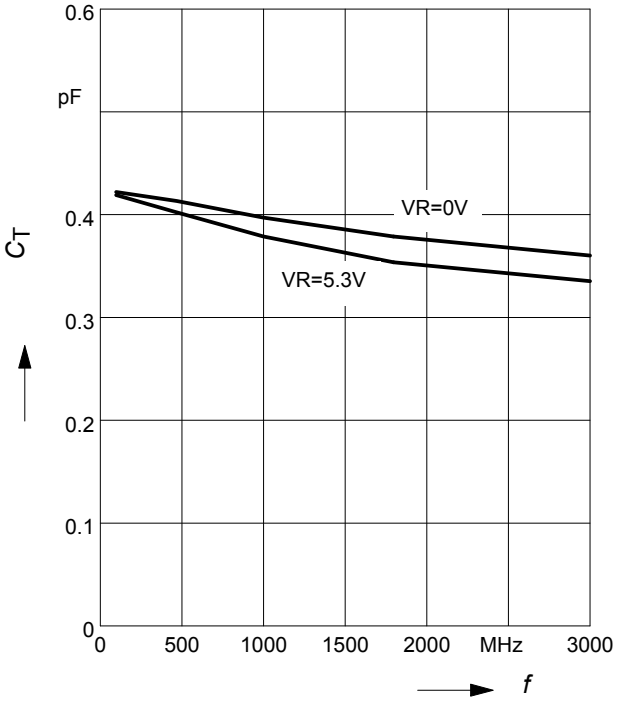
Diode capacitance $C_T = f(V_R)$

f = 1MHz, from pin 1/2 to 3



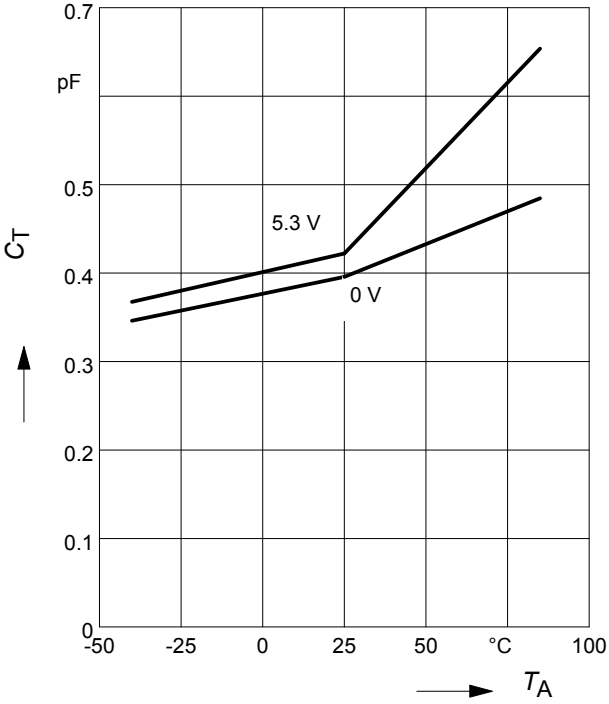
Line capacitance $C_T = f$ (f)

V_R = parameter, from pin 1/2 to 3

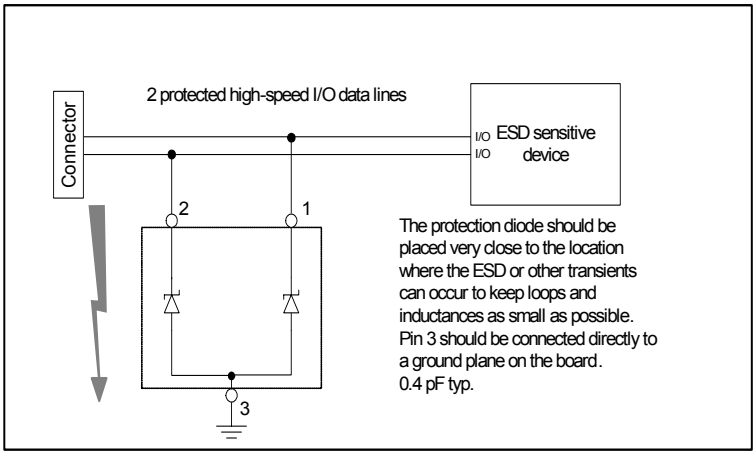


Line capacitance $C_T = f(T_A)$

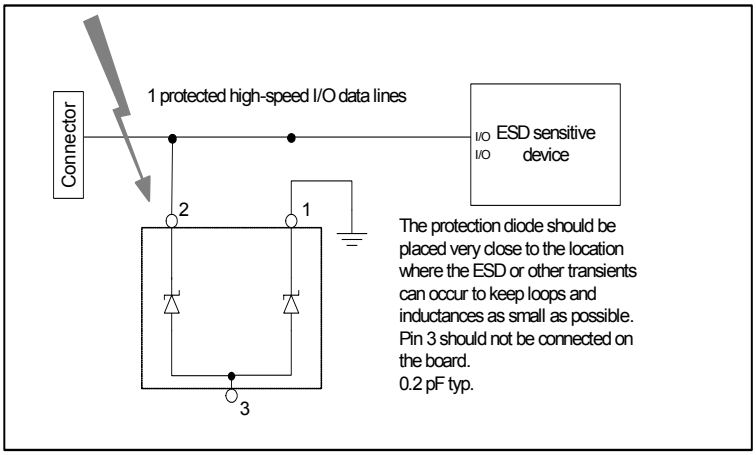
V_R = 0 V, f = 1 MHz



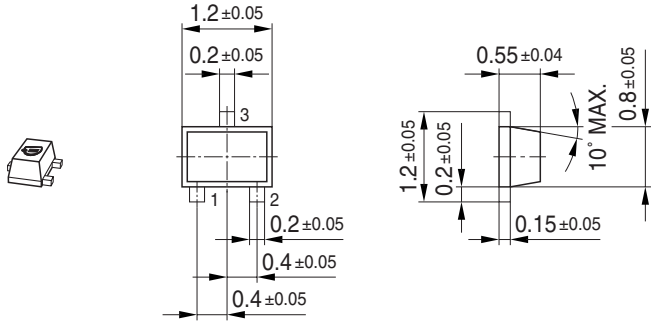
Application example ESD5V3U2U...
2 lines, uni-directional



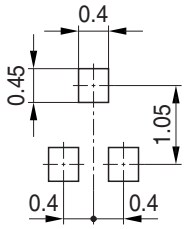
Application example ESD5V3U2U...
1 line, bi-directional



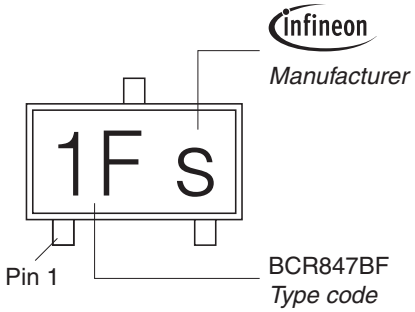
Package Outline



Foot Print

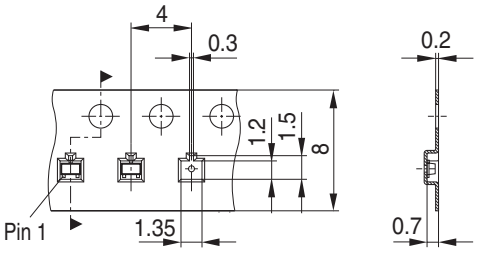


Marking Layout (Example)

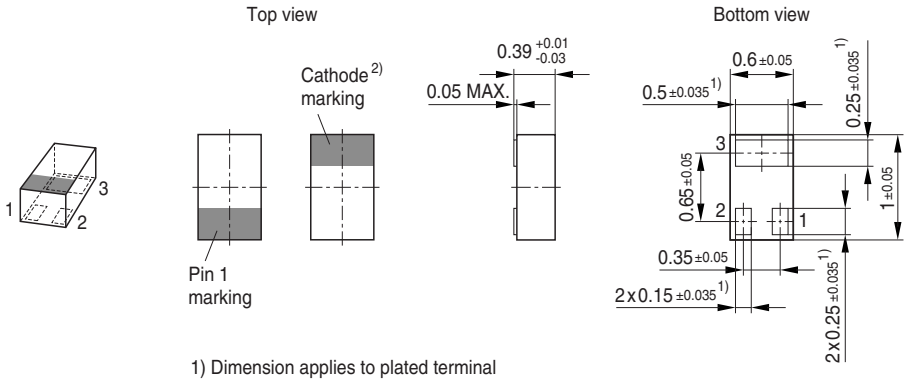


Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel



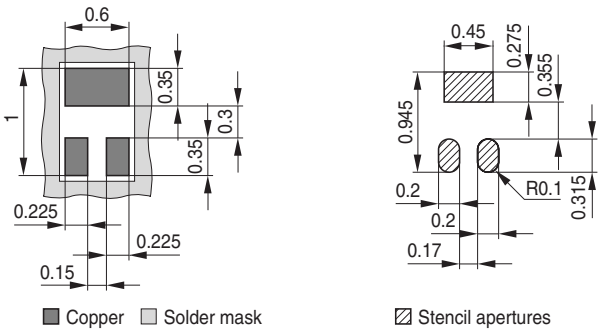
Package Outline



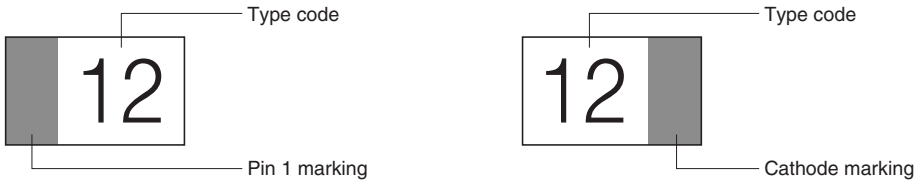
1) Dimension applies to plated terminal
2) Only for diodes, cathode marking on pin 3

Foot Print

For board assembly information please refer to Infineon website "Packages"

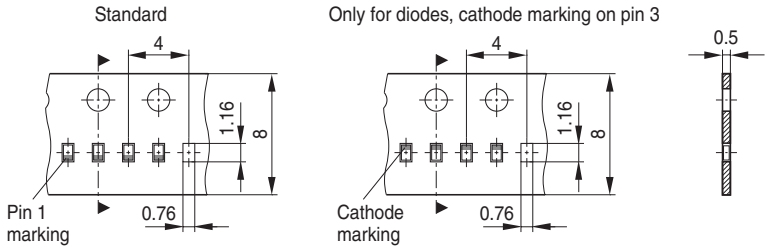


Marking Layout



Standard Packing

Reel ø180 mm = 15.000 Pieces/Reel



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