TVS

1 TVS

2 TVS

3 TVS

4 TVS

5 TVS

6

7 TVS

8 CAN FlexRay TVS

9 LIN TVS

10 USB/ TVS

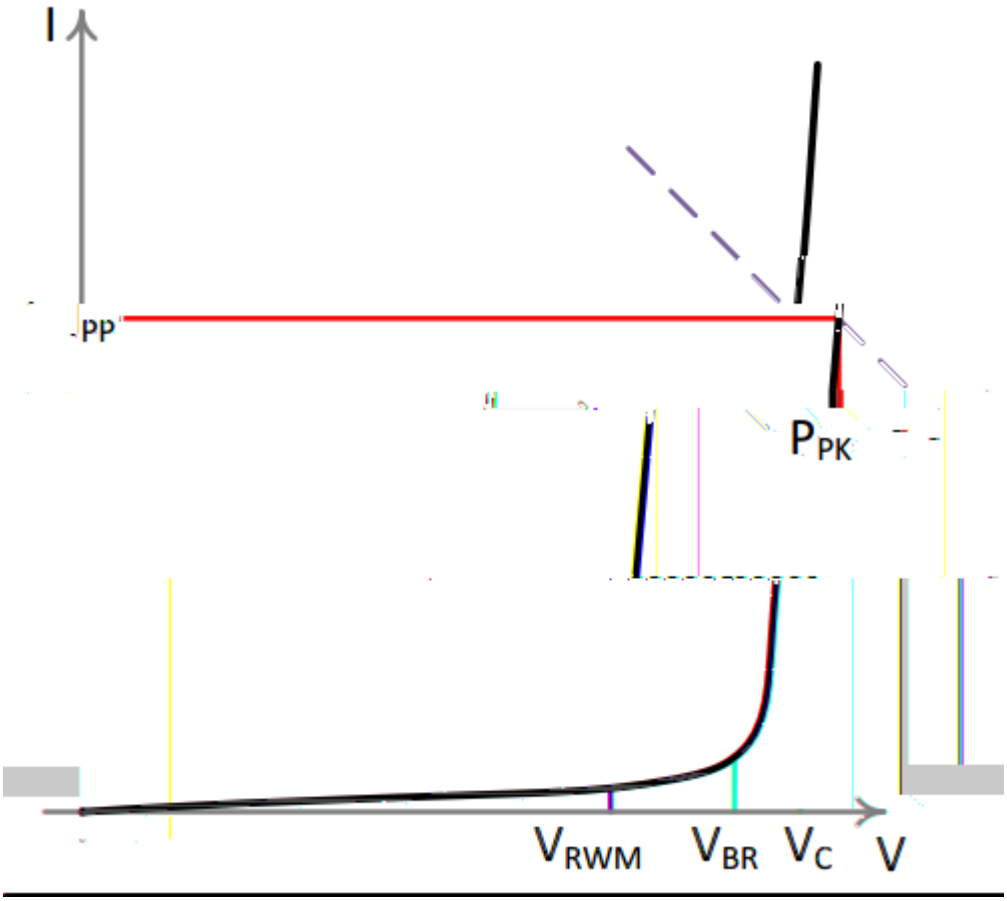
“ Load Dump ”

(TVS)

TVS

TVS TVS

1 TVS



1 TVS —

1 TVS VRWM VBR VC Ipp Ppk

VRWM TVS TVS

TVS

ID TVS VRWM

TVS

TVS VRWM ,TVS

MCU 3.3V

VRWM 3.3V TVS VRWM

VBR:

VC IPP TVS VC VBR

1.2~1.4 C TVS 1 MHz

C TVS C

C TVS /

(

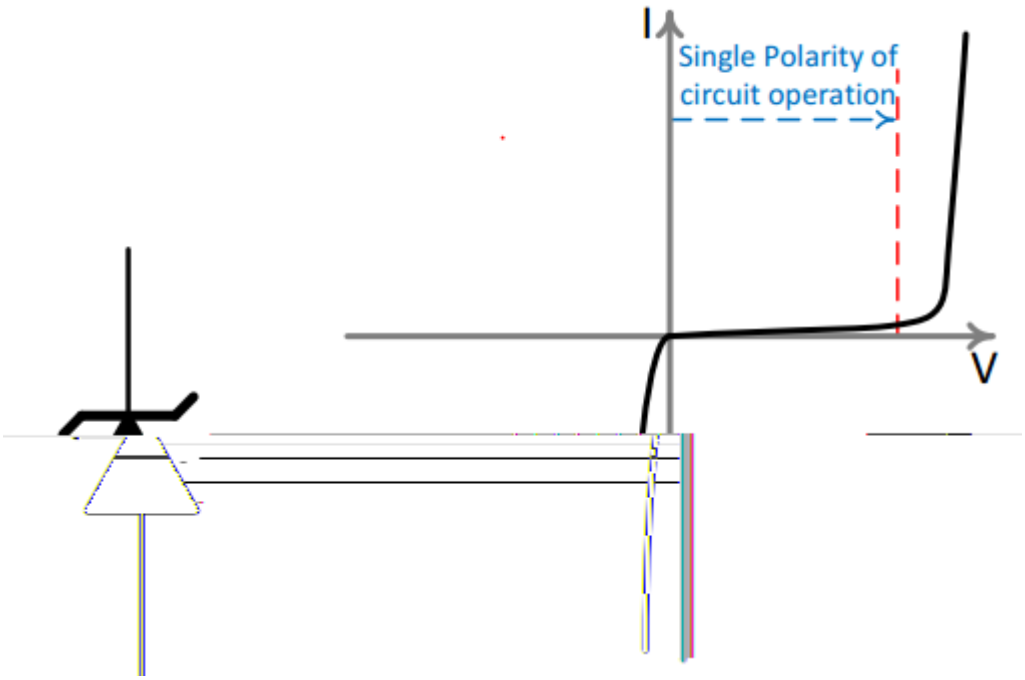
LCTVS TVS 3 pF)

40 pF

2 TVS

TVS TVS

TVS TVS TVS 2

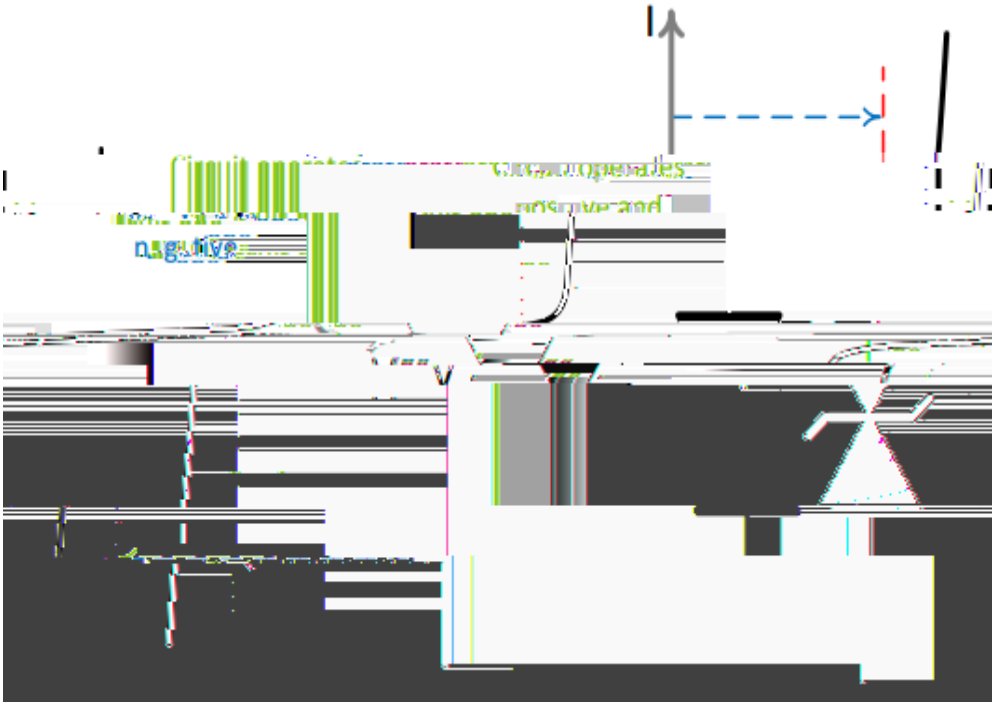


2 TVS I-V

TVS 0V~5V TVS

TVS

TVS 3



3 TVS I-V

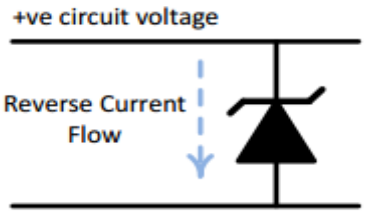
TVS

ESD

TVS (VBR)

(VBR)

VRWM



4 TVS

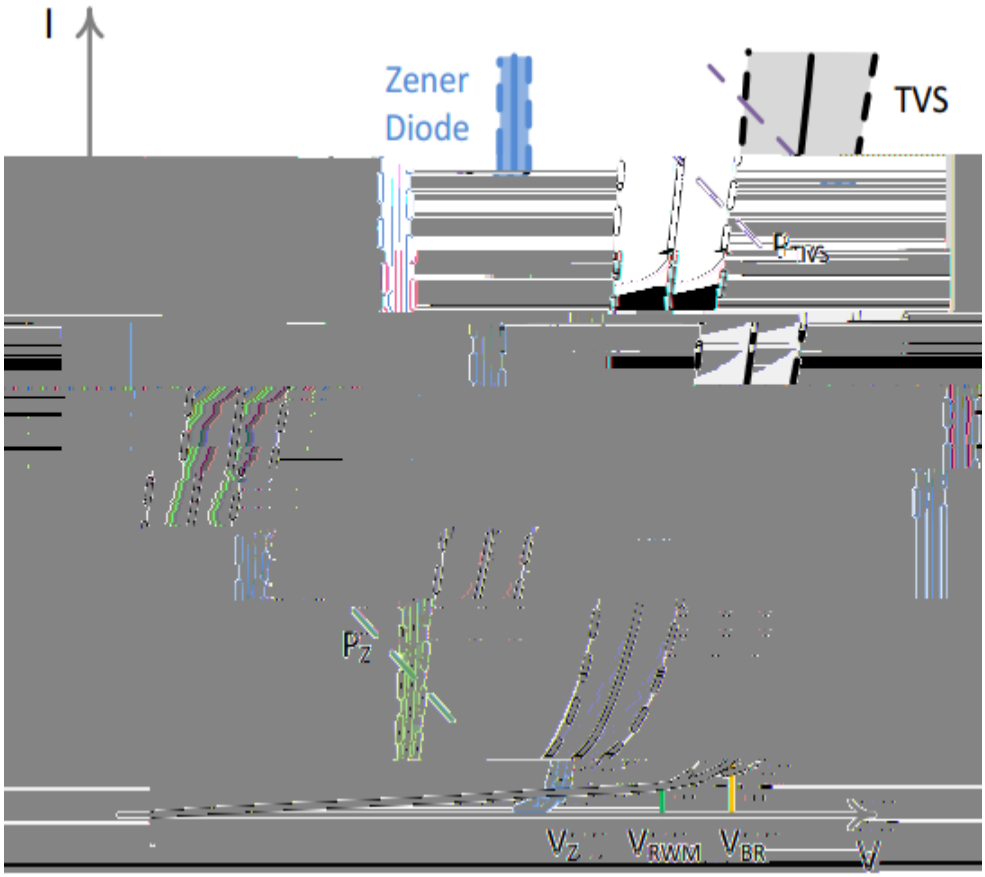
VRWM VBR VC

Vc TVS

3 TVS

TVS

I-V



5 TVS I-V

5 I-V

TVS (VZ)

( )

-

( ) TVS

10 12 (nS-mS)

TVS

TVS

PN TVS

10V 1mA

TVS ——

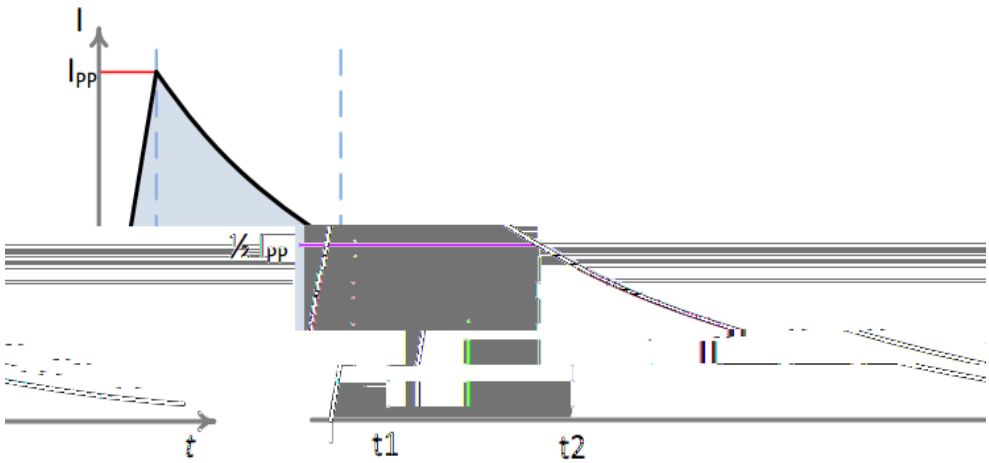
TVS

TVS Ipp

4 TVS

TVS TVS

TVS



6 TVS

6 TVS

t1 t2 8/20us(t1=8us t2=20us IEC 61000-4-5) 10/1000us(t1=10us t2=1000 us, IEC 61643-321)

t2 0 t1

8/20us TVS ESD

10/1000us TVS

TVS

TVS

5 TVS

TVS

8 TVS

12V

ECU 12V

( )

12V

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SiNESEMI TVS

TVS

10 “1”)

12V TVS(10

“2”)

ESD

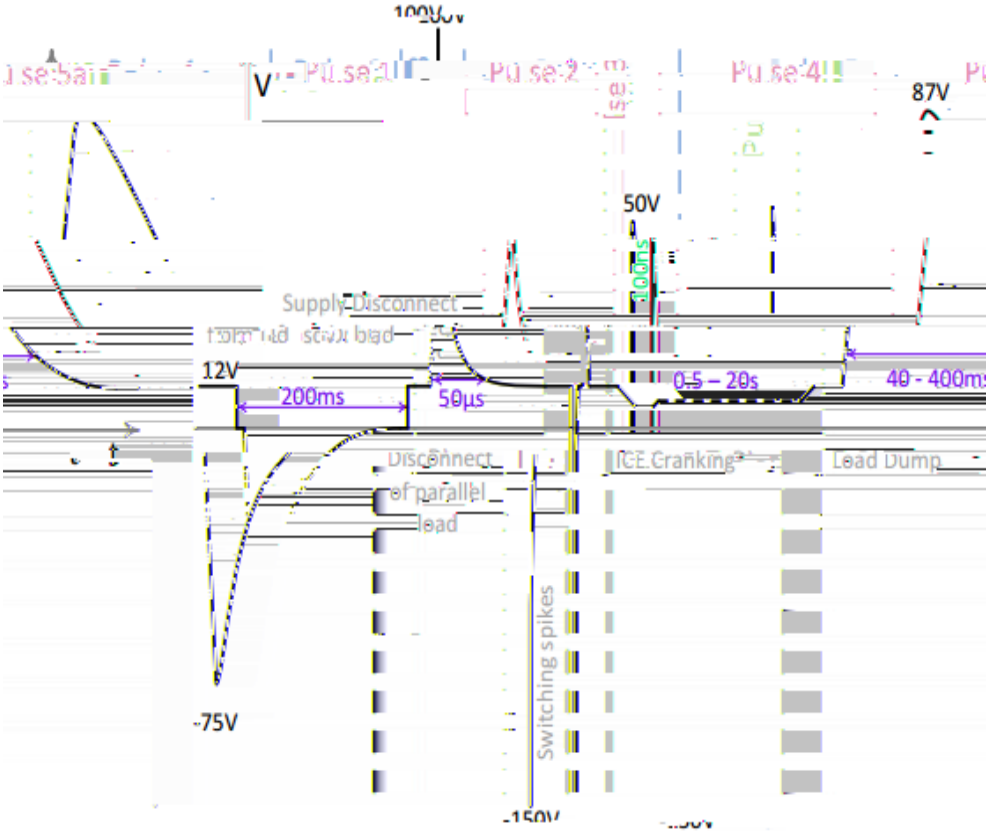
TVS (

10 “3”)

6

ISO 7637—2 ISO 16750 12V

9 —



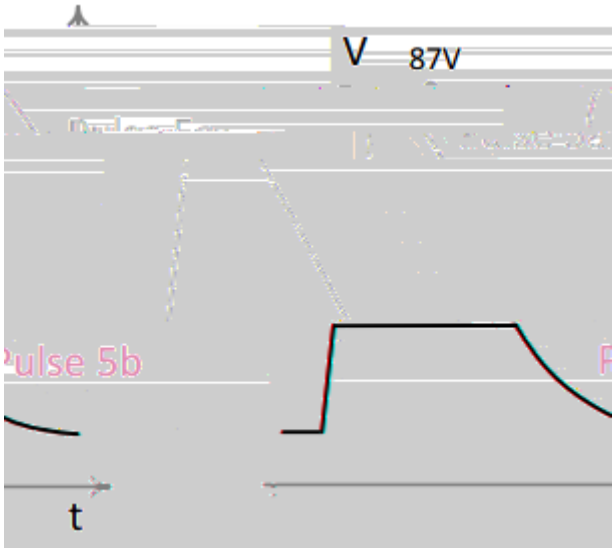
9

- -

TVS

5a 5b

10



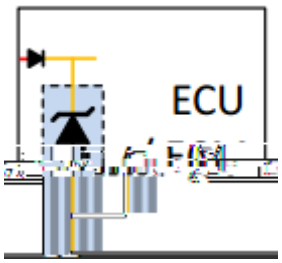
10 5a 5b

5b TVS

9 1 5 10/1000us

TVS TVS

7 TVS



11 TVS

(

MOSFET) TVS

ECU TVS

TVS

SMCJ28C/CAQ SMC 1500W(10/1000us)

TVS SiNESEMI

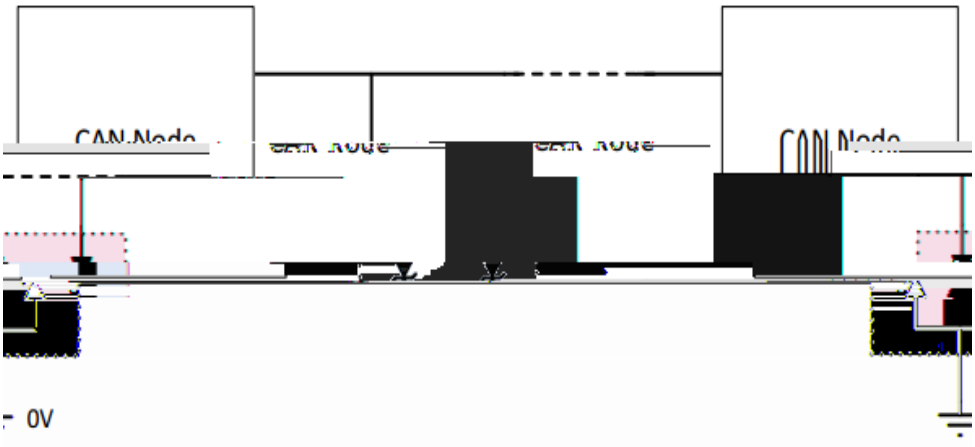
DFN1006-3 TVS SDESD39VASAQ

DFN1006 TVS TVS 33V

120 W 10/1000us

20% PCB

8 CAN FlexRay TVS



12 CAN TVS

CAN FlexRay

TVS

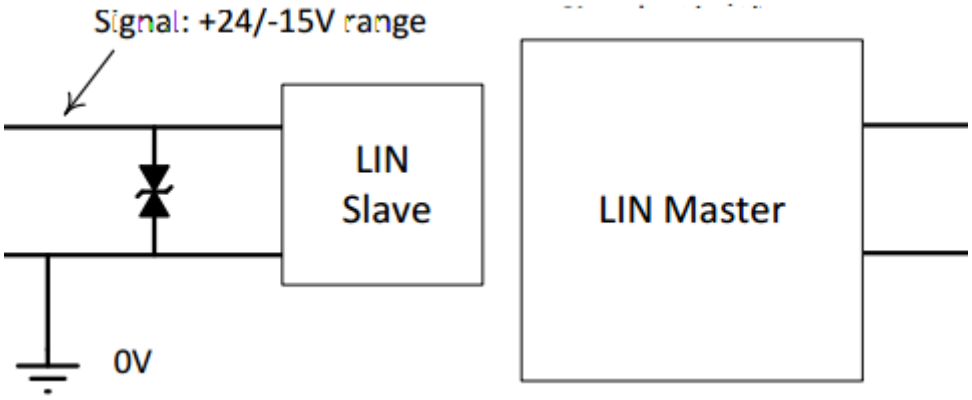
CAN FlexRay

TVS TVS 10-15pF

CAN --

TVS CAN

9 LIN TVS



13 LIN TVS

LIN LIN

24V -15V ( )

TVS

SiNESEMI SDT24V0NUBWFQ SDT24V0HUBWFQ CAN

FlexRay TVS SDESD16VASA LIN

TVS

Product Name	Package	Direction	V_{RWM}	VR (V)	I_R	V_C	I_{PP}
3.0	SDT24V0NUBWFQ	SOD123F	Bi.	24.0	25.4	30.3	1.0	70.0

种类	型号名称	符合	VRWM[V]	Ppp[W]	VCL,TP=8/20us	VBR[V]	IT	封装
ESD16VASA0	YES	13	405	30	2.5	16.0	17.6	1	DFN1006-2W

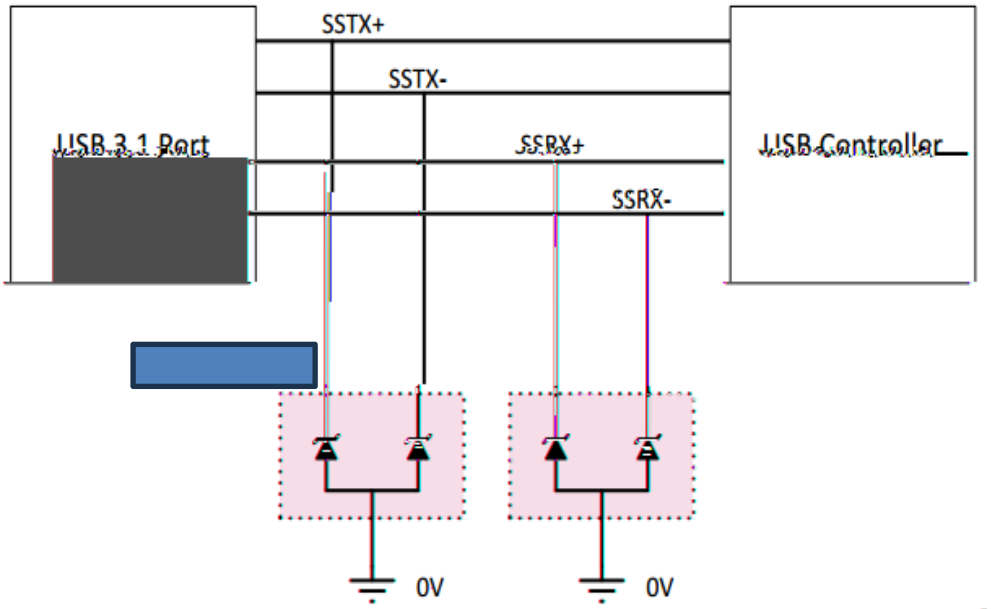
10 USB/ TVS

USB (HDMI) TVS

TVS

PCB

TVS



14 USB3.1 TVS

SiNESEMI TVS SDT5V0NBWFQ

X-DFN1006-3 TVS

PCB USB 3.1

TVS

SiNESEMI

(

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SiNESEMI

SiNESEMI

SiNESEMI

SiNESEMI SiNESEMI

A

1.

2.

B

SiNESEMI

SiNESEMI

SiNESEMI SiNESEMI

@2024 SiNESEMI

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