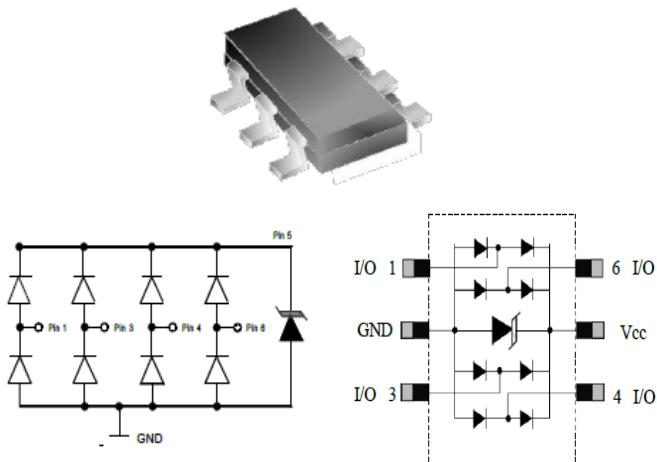


SOT-23-6

Features

60Watts peak pulse power($t_p=8/20\mu s$)

Low clamping voltage

Low leakage current

Glass passivated junction

Low capacitance

IEC 61000-4-2 $\pm 12\text{KV}$ contact $\pm 15\text{KV}$ air

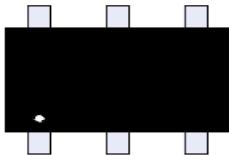
Halogen free and RoHS compliant

Mechanical Data

CASE: SOT23-6 Molded Plastic

Molding compound flammability rating: UL 94V-0

Mounting Position: Any

Making Code & Ordering information

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	60	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)(note1)	I_{PP}	3.5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	15 12	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	7.8	8.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}, T=25^\circ\text{C}$		50	500	nA
Peak Pulse Current	I_{PP}	$tp=8/20\mu s$			3.5	A
Clamping Voltage	V_C	$IPP=3.5\text{A}, tp=8/20\mu s$		10	13	V
Junction Capacitance	C_j	$V_R = 0\text{V}, f = 1\text{MHz}$ IO to IO		0.2	0.25	pF
		$V_R = 0\text{V}, f = 1\text{MHz}$ IO to GND		0.36	0.5	

Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

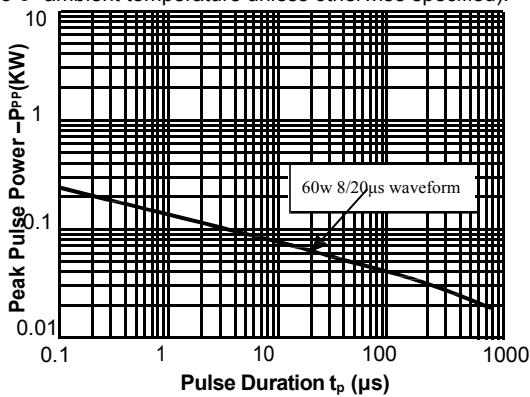


Fig.1 Peak Pulse Power Rating Curve

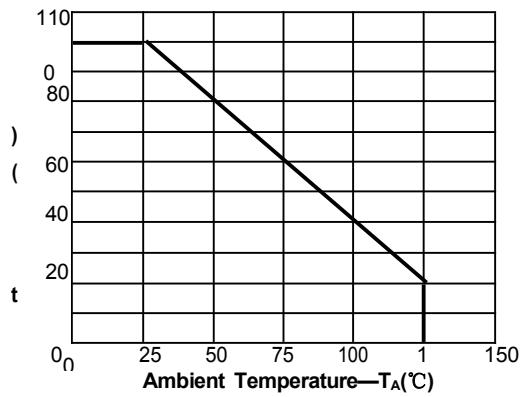


Fig.2 Pulse Derating Curve

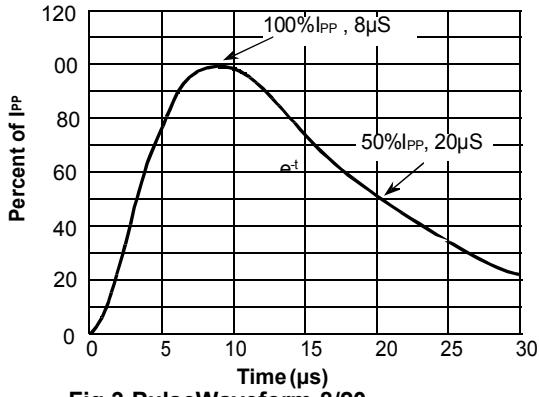


Fig.3 PulseWaveform-8/20μs

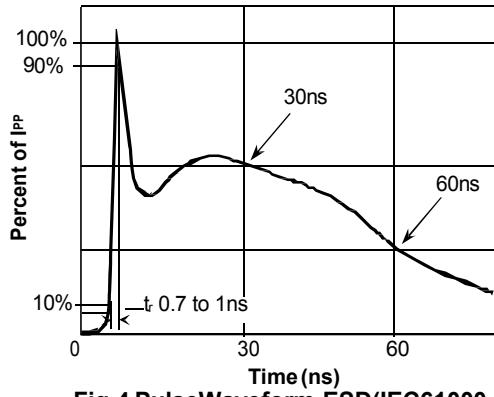


Fig.4 PulseWaveform-ESD(IEC61000-4-2)

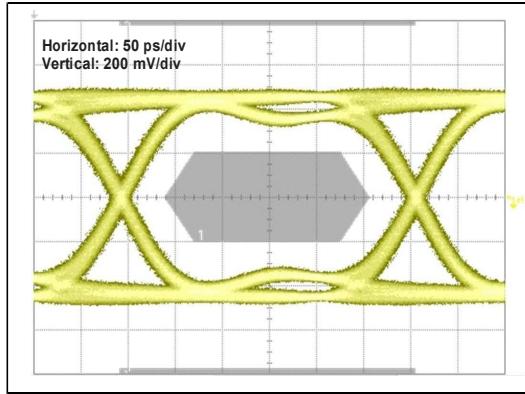


Fig.5 Eye Diagram - HDMI mask at 3.4Gbps per channel

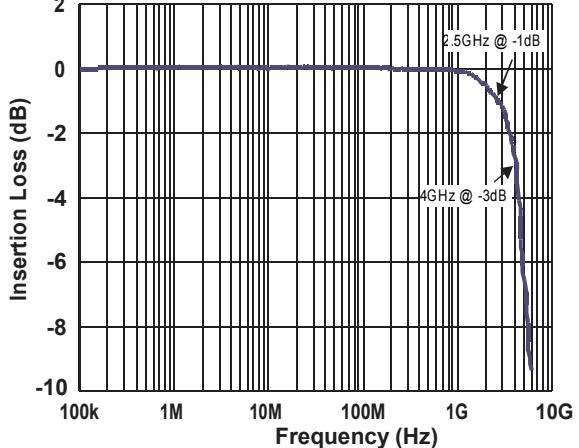
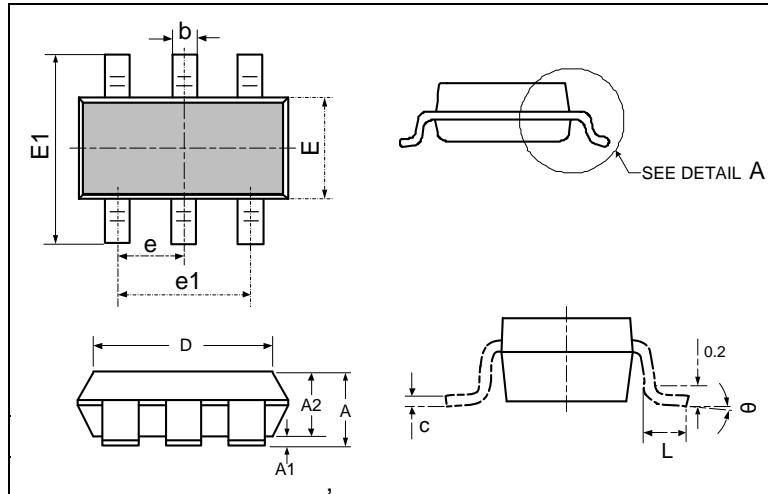


Fig.6 Insertion Loss S21 - I/O to GND

Package Outline Dimensions: SOT-23-6



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETER	
	MIN	MAX	MIN	MAX
A	0.041	0.049	1.050	1.250
A1	0.000	0.004	0.000	0.100
A2	0.041	0.045	1.050	1.150
D	0.111	0.119	2.820	3.020
E	0.059	0.067	1.500	1.700
E1	0.104	0.116	2.650	2.950
b	0.012	0.020	0.300	0.500
e	0.037(BSC)		0.950(BSC)	
e1	0.071	0.079	1.800	2.000
L	0.012	0.024	0.300	0.600
θ	0°	8°	0°	8°