



Features

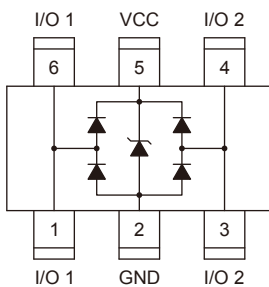
- 75W peak pulse power (8/20 μ s)
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Two data lines and one power line protects
- IEC61000-4-2 (ESD) \pm 25kV (air), \pm 20kV (contact)
- IEC61000-4-5 (Lightning) 5A (8/20 μ s)



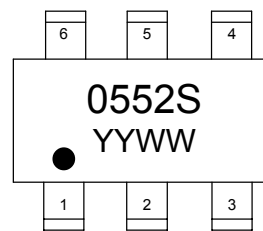
Mechanical Characteristics

- Case: Molded plastic, SOT-23-6
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Moisture Sensitivity: Level 3 per J-STD-020

Pin Configuration



Marking Code



0552S = Device Marking Code
 YYWW = Date Code
 Dot denotes Pin1

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20 μ s waveform)	P_{PPM}	75	W
Peak Pulse Current (tp=8/20 μ s waveform)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	\pm 25 \pm 20	kV
Operating Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

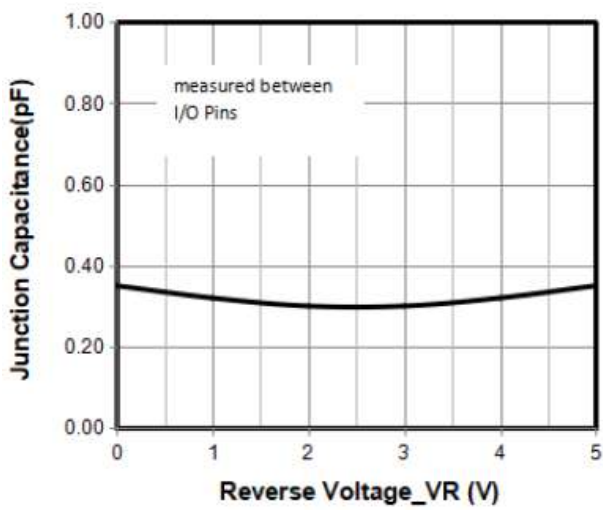


Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

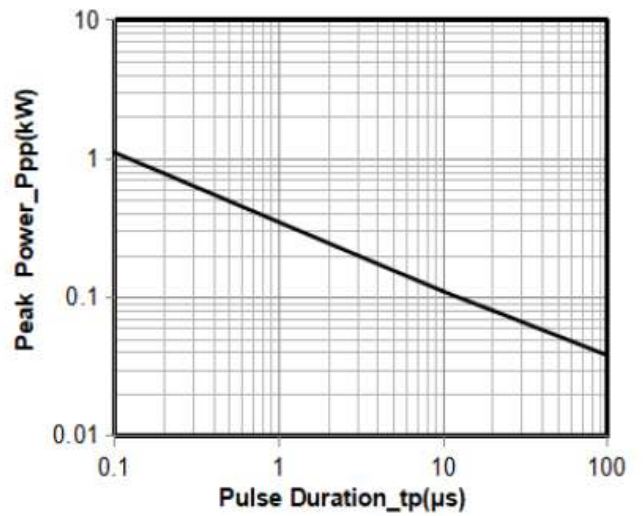
Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage		V_{RWM}			5	V
Breakdown Voltage	$I_T = 1\text{mA}$	V_{BR}	6			V
Reverse Leakage Current	$V_{RWM} = 5\text{V}$	I_R			0.2	μA
Clamping Voltage	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)	V_C			10	V
Clamping Voltage	$I_{PP} = 5\text{A}$ (8 x 20 μs pulse)	V_C			15	V
Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$, between I/O pins	C_J			0.4	pF
Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$, any I/O pin to ground	C_J			0.8	pF



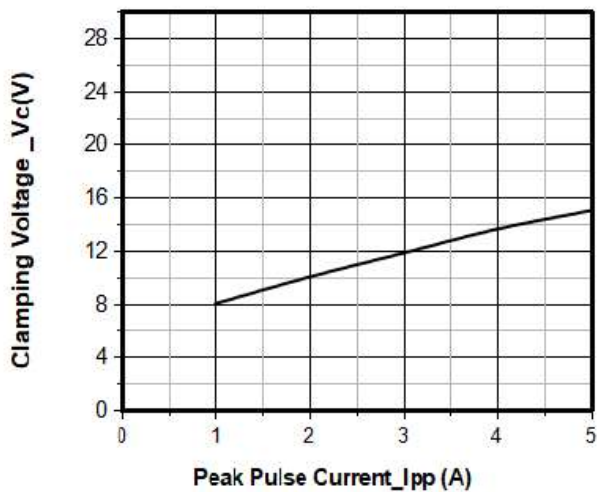
Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)



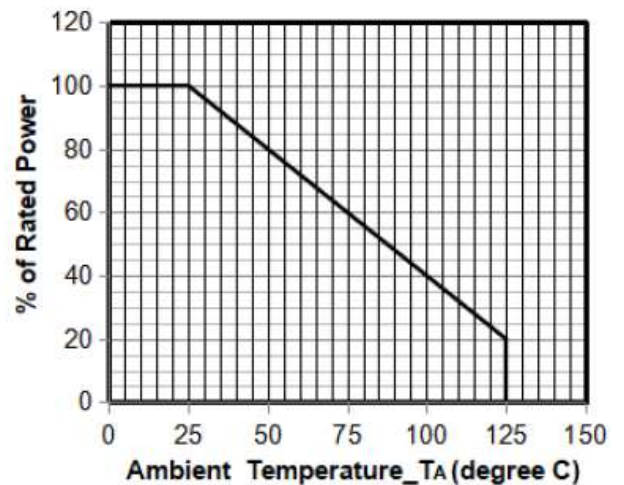
Junction Capacitance vs. Reverse Voltage



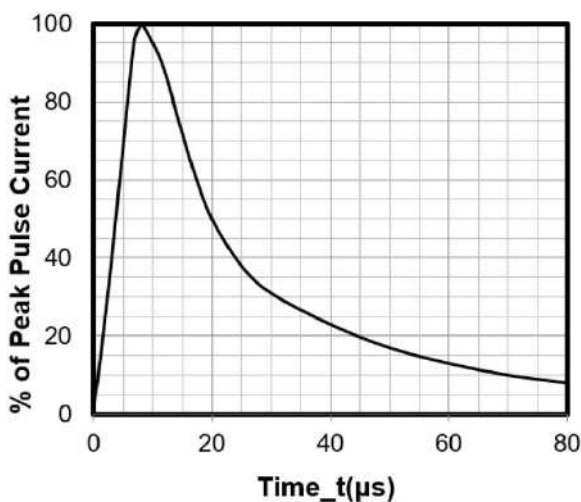
Peak Pulse Power vs. Pulse Time



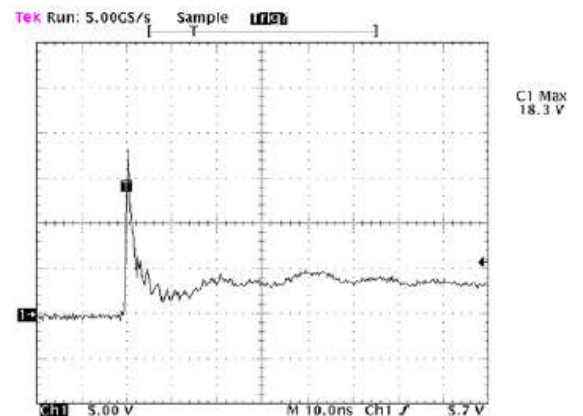
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20μs Pulse Waveform



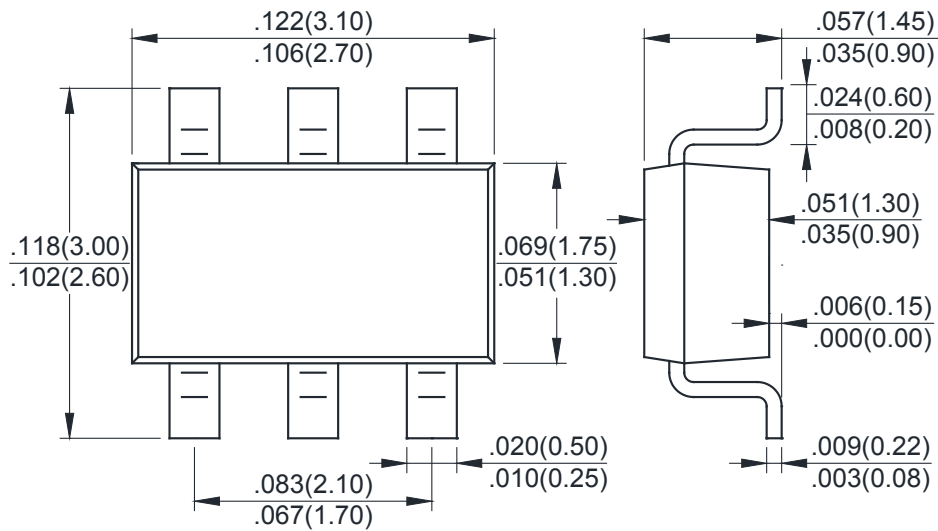
Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

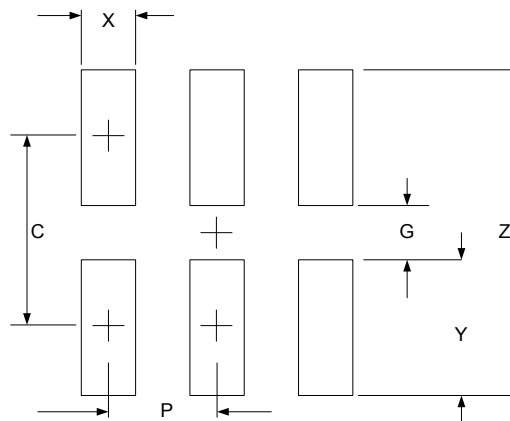
Structures and Dimensions

SOT-23-6



Dimensions in inches and (millimeters)

Recommended Soldering Pad Dimensions



Package Type	C	G	P	X	Y	Z
SOT-23-6	2.50	1.40	0.95	0.60	1.10	3.60

Unit: mm

Quantity

Part Number	Package Type	Reel Size (inch)	Reel (Kpcs)
YEUST260505AW	SOT-23-6	7	3