

100W Surface Mount TVS For ESD Protection Device**FEATURES**

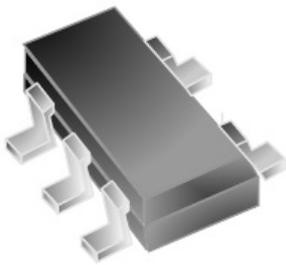
- Solid-state silicon-avalanche technology
- 100 Watts Peak Pulse Power per Line (tp=8/20μs)
- Low operating and clamping voltages
- Up to Four (4) Lines of Protection
- Working Voltages: 3.3 V
- Low Leakage Current

MECHANICAL DATA

- Case : Molded plastic, SOT-353
- Polarity : Shown follows
- MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

SOT-353 PACKAGE

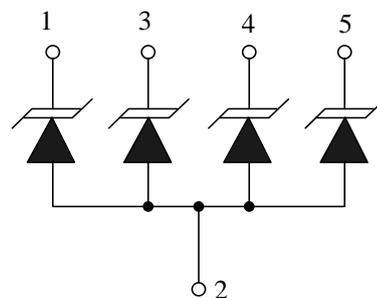
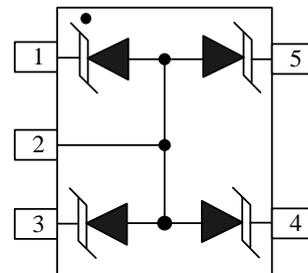
Marking : 05F

**APPLICATIONS**

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 Player

IEC COMPATIBILITY

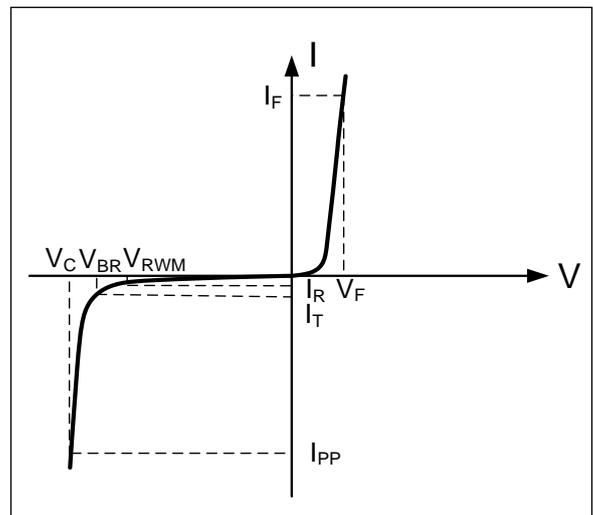
- IEC 61000-4-2 (ESD) ±20kV (air), ±15kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5.5A (8/20μs)

SCHEMATIC & PIN CONFIGURATION

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	W
Peak Forward Voltage ($I_F = 1A, t_p = 8/20\mu s$)	V_{FP}	1.5	V
Operating Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

Electrical Parameters (T=25 $^{\circ}C$)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

DCS03353W						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	4.0			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V, T = 25^{\circ}C$			1	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$			5.5	A
Clamping Voltage	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			9.6	V
Clamping Voltage	V_C	$I_{PP} = 5.5A, t_p = 8/20\mu s$		15	18	V
Junction Capacitance	C_j	Between I/O pins and Ground $V_R = 0V, f = 1MHz$		22	25	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

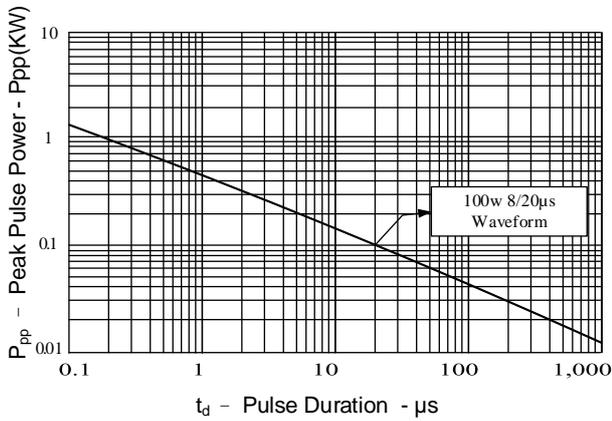


Figure 2: Power Derating Curve

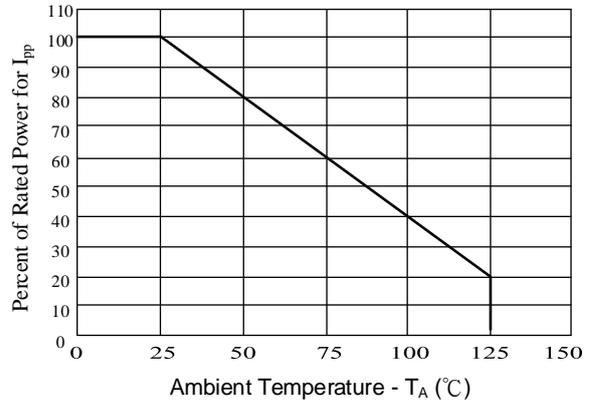


Figure 3: Clamping Voltage vs. Peak Pulse Current

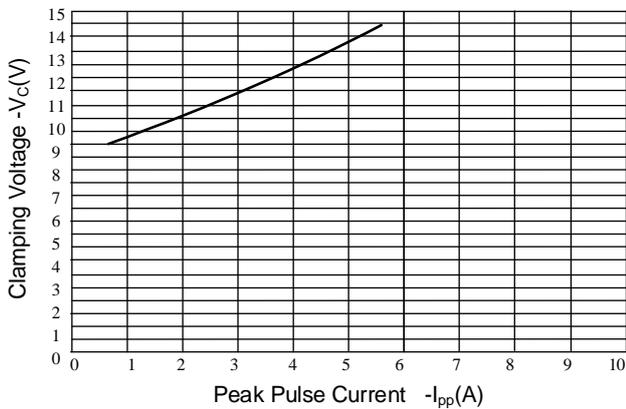


Figure 4: WS05MF Insertion Loss

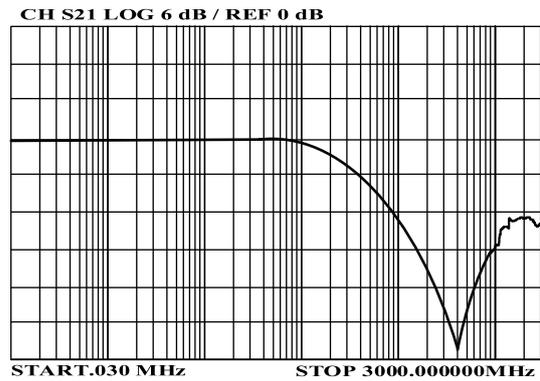


Figure 5: Normalized Junction Capacitance vs. Reverse Voltage

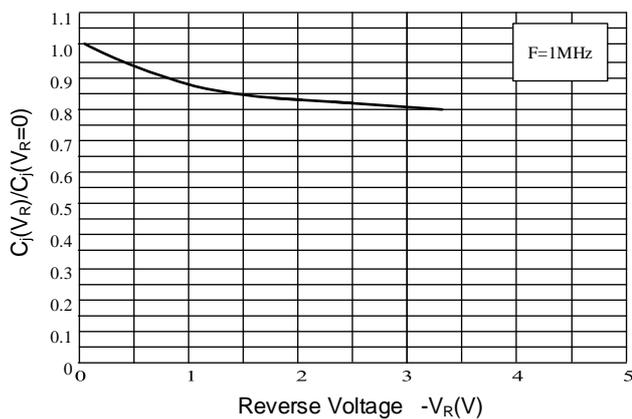
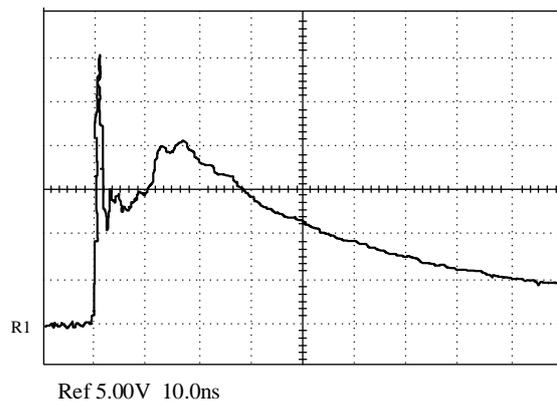
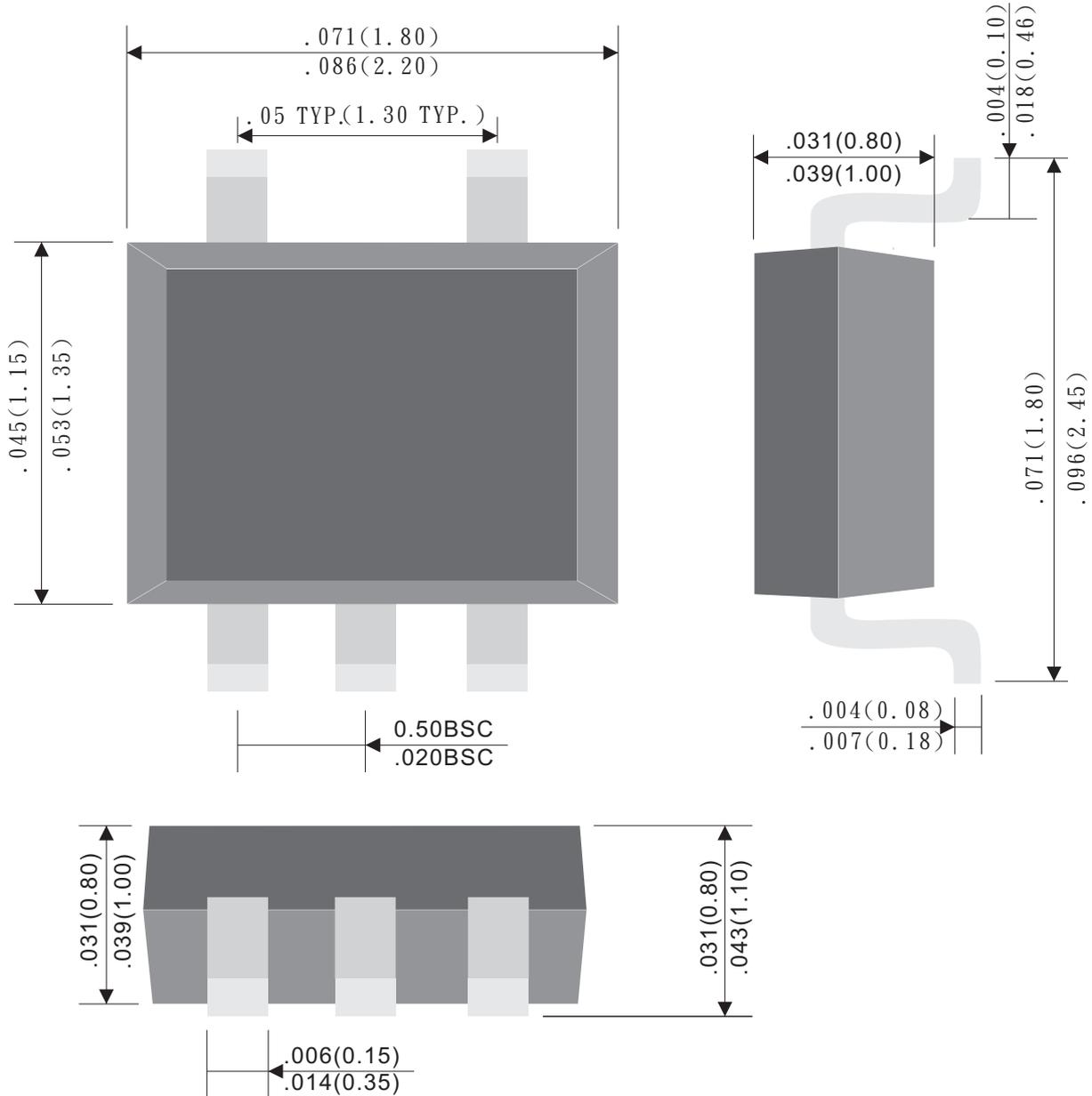


Figure 6: ESD Pulse Waveform (Per IEC 61000-4-2)



Outline Drawing

SOT-353



Dimensions in inches and (millimeters)

Rev.B

Ordering Information:

Device PN	Packing
SESD3V3KW -T ⁽¹⁾ H ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) Halogen free product for packing code suffix "H"

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