

Innovative Service Around the Globe

DATA SHEET ELECTROSTATIC DISCHARGE PROTECTION DEVICES INDUSTRIAL / CONSUMER SAT36A05L05

RoHS compliant & Halogen free



Electrostatic Discharge Protection Devices SAT36A05L05

Electrostatic Discharged Protection Devices (ESD) Data Sheet

Description

Brightking's SAT36A05L05 is designed to protect sensitive electronics from damage or latch-up due to ESD and other voltage induced transient events. It is designed for use in applications where board space is at a premium. Each device will protect up to five lines. It is unidirectional devices and may be used on lines where the signal polarities are above ground. The low profile SOT-363 package allows flexibility in the design of crowed circuit boards.

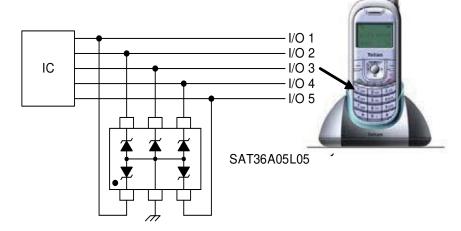
Features

- IEC61000-4-2 ESD 15KV Air, 8KV contact compliance
- SOT-363 surface mount package
- Protects five unidirectional lines
- Peak power dissipation of 100W under 8/20µs waveform
- Working voltage: 5V
- Low leakage current
- Low operating and clamping voltages
- Solid-state silicon avalanche technology
- Lead Free/RoHS compliant
- Solder reflow temperature: Pure Tin-Sn, 260~270°C
- Flammability rating UL 94V-0
- Meets MSL level 1, per J-STD-020
- Marking: WF or 05C

Applications

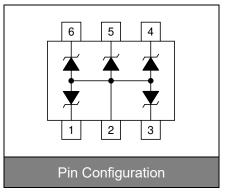
- Cell phone handsets and accessories
- Personal digital assistants (PDA's)
- Portable instrumentation
- Set Top Box (STB)
- Servers, notebook and desktop PC
- Digital cameras

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 Electrostatic Discharge Protection Devices
 SAT36A05L05

Maximum Ratings

Rating	Symbol	Value	Unit	
Peak pulse power (tp=8/20µs waveform)	P _{PP}	100	W	
ESD voltage (Contact discharge)	N	±8	- kV	
ESD voltage (Air discharge)	V _{ESD}	±15		
Storage & operating temperature range	T _{STG} ,TJ	-55~+150	°C	

Electrical Characteristics (T_J=25 $^\circ\!\mathrm{C}$)

Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
Reverse stand-off voltage	V _{RWM}				5	V
Reverse breakdown voltage	V_{BR}	I _{BR} =1mA	6			V
Reverse leakage current	I _R	V _R =5V Each I/O pin			5	μA
Clamping voltage (tp=8/20µs)	Vc	I _{PP} =1A			9.8	V
Peak Pulse Current(tp=8/20µs)	I _{PP}				5	А
Off state junction capacitance	CJ	0Vdc,f=1MHz Between I/O pins and GND			50	pF

3 7

Electrostatic Discharge Protection Devices SAT36A05L05

4

7

Typical Characteristics Curves

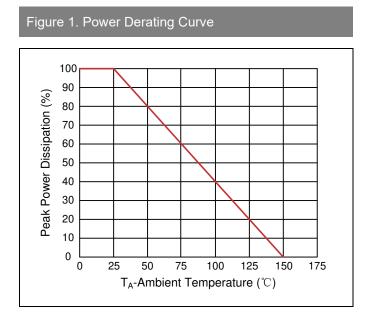


Figure 3. Non-Repetitive Peak Pulse vs. Pulse Time

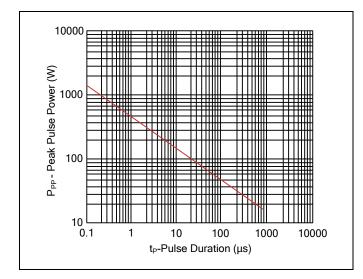


Figure 2. Pulse Waveforms

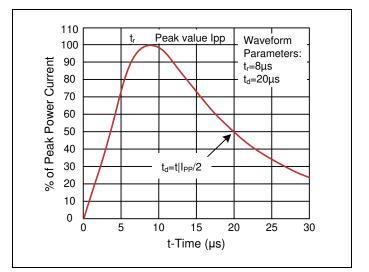
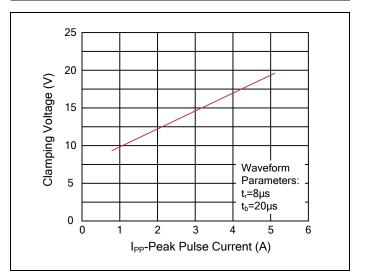
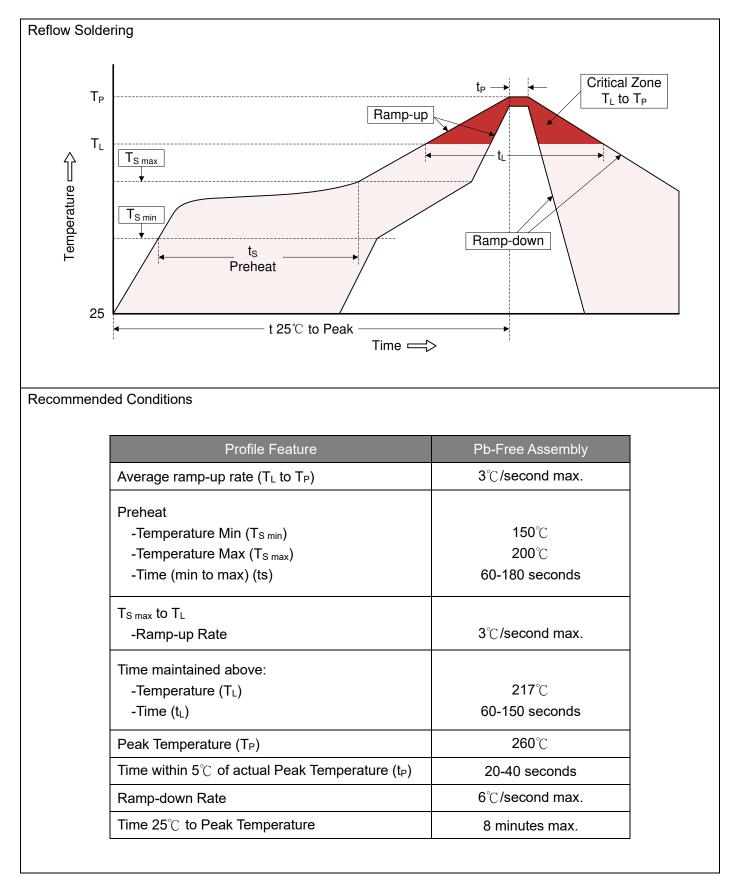


Figure 4. Clamping Voltage vs. Peak Pulse Current



Electrostatic Discharge Protection Devices SAT36A05L05

Recommended Soldering Conditions



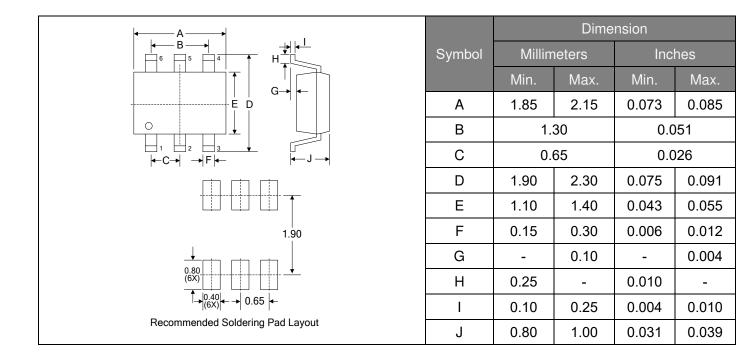


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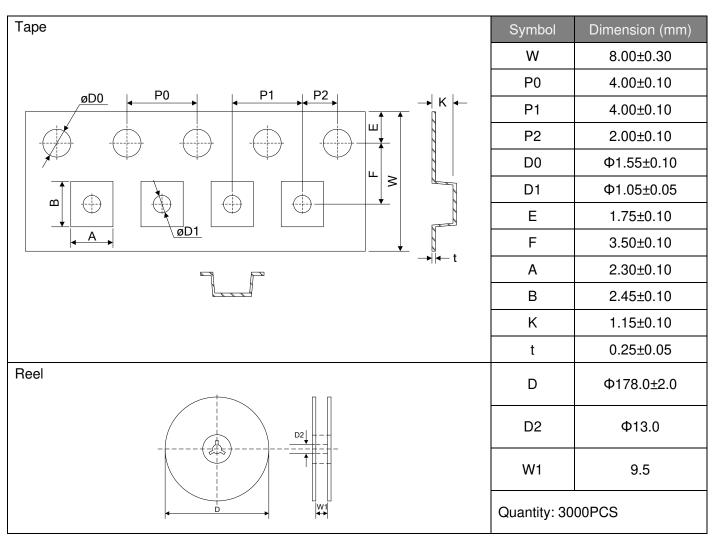
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6

Dimensions (SOT-363)



Packaging





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