

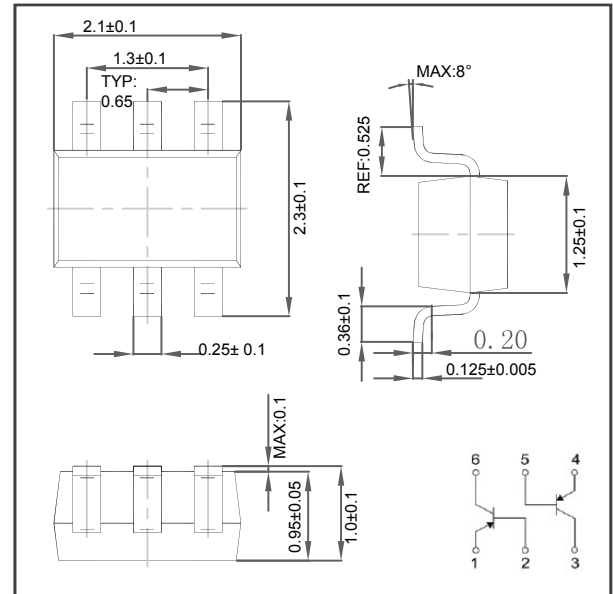
## SURFACE MOUNT FAST SWITCHING DIODE ARRAY

### FEATURES

- Fast Switching Speed: max. 50ns
- Continuous Reverse Voltage: max. 200V
- Repetitive Peak Reverse Voltage: max. 250V
- Repetitive Peak Forward Current: max. 1A
- Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- Qualified to AEC-Q101 Standard for High Reliability

### Mechanical Data

- Case: SOT-363
- Case Material: Molded Plastic, "Green" Molding Compound, Note 5. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020



### Maximum Ratings (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	250	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	250	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	177	V
Forward Continuous Current (Note 5)	I <sub>FM</sub>	200	mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	@ t = 50µs	10
		@ t = 100µs	8
		@ t = 10ms	2

### Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P <sub>D</sub>	300	mW
Thermal Resistance Junction to Ambient Air (Note 5)	R <sub>θJA</sub>	417	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

### Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V <sub>(BR)R</sub>	250	—	V	I <sub>R</sub> = 100µA
Forward Voltage	V <sub>F</sub>	—	1.05 1.25	V	I <sub>F</sub> = 100mA I <sub>F</sub> = 200mA
Reverse Current (Note 6)	I <sub>R</sub>	—	100 100	nA µA	V <sub>R</sub> = 200V V <sub>R</sub> = 200V, T <sub>J</sub> = +150°C
Total Capacitance	C <sub>T</sub>	—	5	pF	V <sub>R</sub> = 6, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	50	n	V <sub>R</sub> = 6V, I <sub>F</sub> = 5mA

Notes: 5. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.  
6. Short duration pulse test used to minimize self-heating effect.

**RATINGS AND CHARACTERISTIC CURVES**

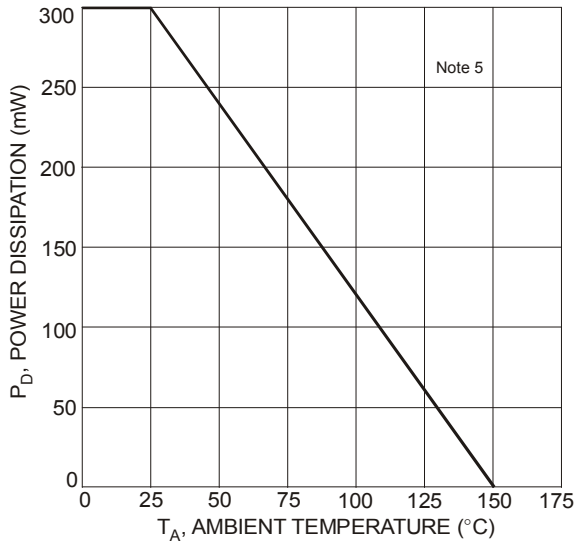


Figure 1 Power Derating Curve, Total Package

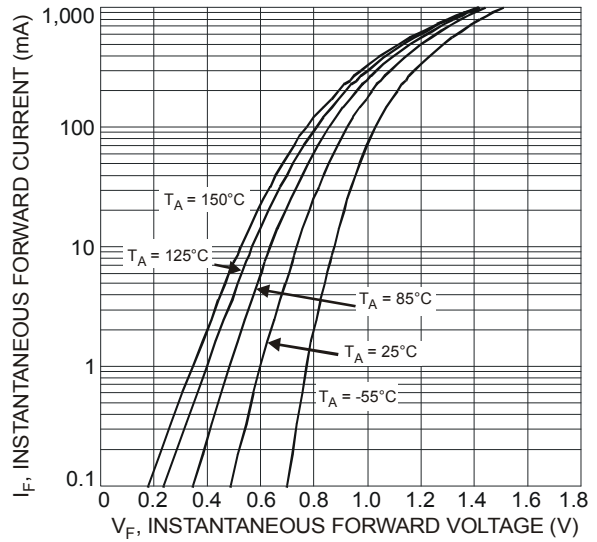


Figure 2 Typical Forward Characteristics, Per Element

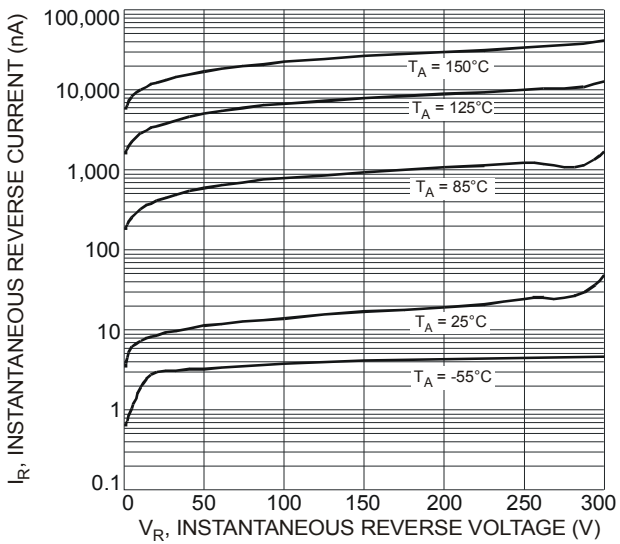


Figure 3 Typical Reverse Characteristics, Per Element

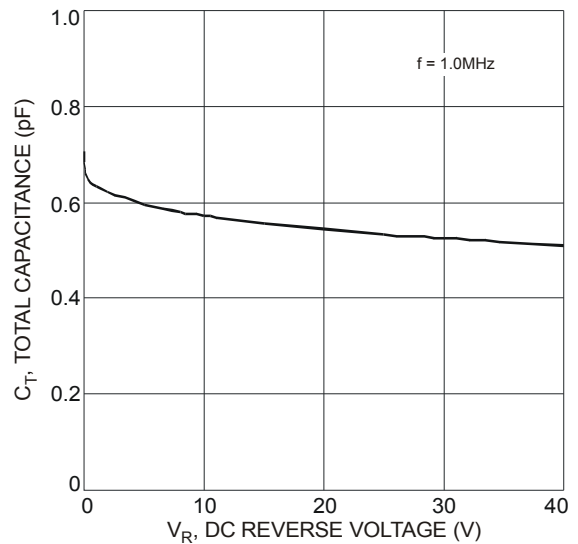


Figure 4 Total Capacitance vs. Reverse Voltage, Per Element