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## **DAN202U**

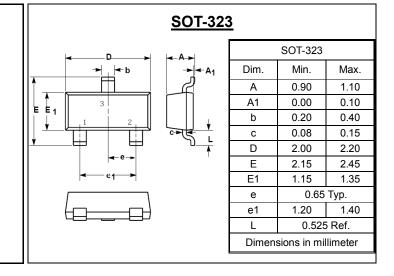
### SURFACE MOUNT FAST SWITCHING DIODE

#### FEATURES

- Fast switching speed
- · Ideally suited for automatic insertion
- For general purpose switching applications

#### **MECHANICAL DATA**

- Case: SOT-323 Plastic
- Case material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant



**REVERSE VOLTAGE – 80 Volts** 

FORWARD CURRENT – 0.1 Ampere

#### Maximum Ratings & Thermal Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic		Symbol	DAN202U	Units
Peak Reverse Voltage		V <sub>RM</sub>	80	V
DC Blocking Voltage		V <sub>R</sub>	80	V
Forward Continuous Current		I <sub>FM</sub>	300	mA
Average Rectified Output Curren	t	Ι <sub>ο</sub>	100	mA
Non-Repetitive Peak Forward Surge Current	@t=1.0us	I <sub>FSM</sub>	300	mA
Power Dissipation		P <sub>D</sub>	200	mW
Operating Temperature Range		TJ	150	°C
Storage Temperature Range		T <sub>STG</sub>	-55~+150	°C

#### **Electrical Characteristics** @ $T_A = 25^{\circ}C$ unless otherwise specified

Characteristic	Test Condition	Symbol	Min.	Тур.	Max.	Unit
Reverse Breakdown Voltage	I <sub>R</sub> = 100uA	$V_{BR}$	80			V
Maximum Forward Voltage	I <sub>F</sub> = 100mA	V <sub>F</sub>			1.2	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	V <sub>R</sub> = 70V	I <sub>R</sub>			0.1	uA
Typical Diode Capacitance	V <sub>R</sub> =6V,f=1MHz	CD			3.5	pF
Reverse Recovery time	$V_R$ =6V, $I_F$ =5mA	trr			4	ns
				REV	. 2, Oct-2010, I	SYR53

# RATING AND CHARACTERISTIC CURVES DAN202U

#### Fig.1 Power Derating Curve **Fig.2 Typical Forward Characteristics** 125 50 POWER DISSIPATION : Pd / Pd Max.(%) (mA) 20 100 10 FORWARD CURRENT : IF 5 75 85°C Τa 2 25 50 1 0.5 25 0.2 0⊾ 0 0.1 0.2 0.4 0.8 1.4 25 50 75 100 125 150 0 0.6 1.0 1.2 1.6 FORWARD VOLTAGE : VF (V) AMBIENT TEMPERATURE :Ta (°C) Fig.3 Typical Reverse Characteristics Fig.4 Reverse recovery time (trr) measurement circuit 0.01µF D.U.T. 1000 Ta=100°C (HA) ş $5\Omega$ 75°C SAMPLING OSCILLOSCOPE PULSE GENERATOR OUTPUT 50Ω 100 50 REVERSE CURRENT : IR 50°C 10 25°C INPUT o∘c 1 <u>100ns</u> -25°C 0.1 OUTPUT 0 0.01**L** 0 0.1IR 40 50 30 60 10 20 70 80 Ľ REVERSE VOLTAGE : VR (V)

IEON

#### **Device Marking :**

Device P/N	Marking code	Equivalent Circuit Diagram
DAN202U	Ν	



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