



# STR5100SS

## Low $V_f$ Schottky Barrier Rectifier

**Voltage** 100 V **Current** 5 A

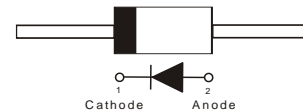
### Features

- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Low leakage
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case : DO-201AD Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.122 grams

### DO-201AD



## Maximum Ratings and Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS Voltage	$V_{RMS}$	70	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	$I_{FSM}$	100	A
Typical Thermal Resistance	(Note 1) $R_{\theta JC}$	19	$^{\circ}\text{C/W}$
	(Note 1) $R_{\theta JL}$	13	
Operating Junction Temperature Range	$T_J$	-55~150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55~150	$^{\circ}\text{C}$



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 1\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.45	-	V
		$I_F = 3\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.58	-	V
		$I_F = 5\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	0.74	V
		$I_F = 1\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.37	-	V
		$I_F = 3\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.54	-	V
		$I_F = 5\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.62	-	V
Reverse Current <sup>(Note 2)</sup>	$I_R$	$V_R = 80\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	1.4	-	uA
		$V_R = 100\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	-	50	
		$V_R = 100\text{ V}, T_J = 125\text{ }^\circ\text{C}$	-	1.9	-	mA

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, with 100 cm<sup>2</sup> copper pad area.
2. Short duration pulse test used to minimize self-heating effect.



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## TYPICAL CHARACTERISTIC CURVES

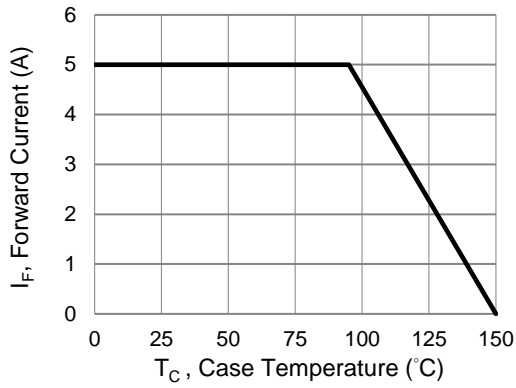


Fig.1 Forward Current Derating Curve

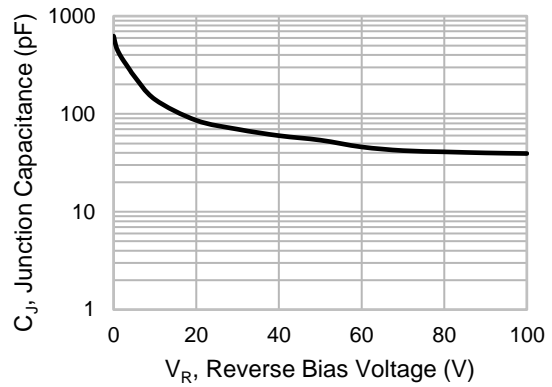


Fig.2 Typical Junction Capacitance

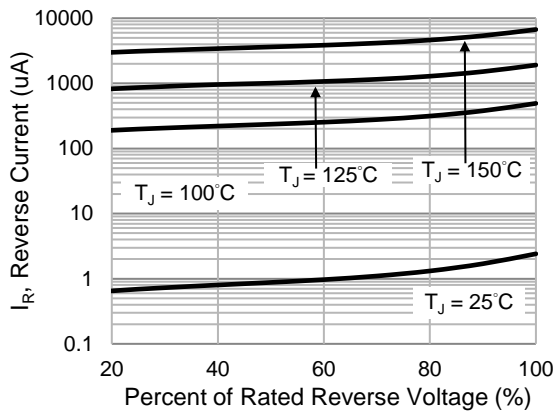


Fig.3 Typical Reverse Characteristics

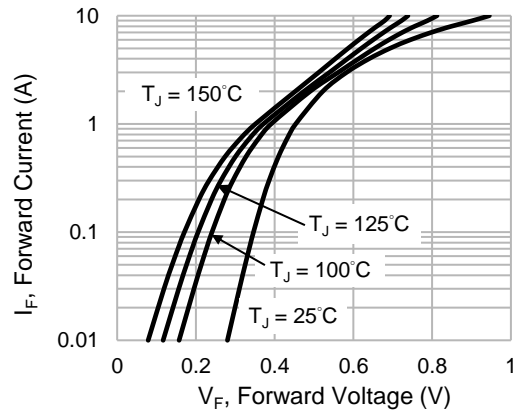


Fig.4 Typical Forward Characteristics

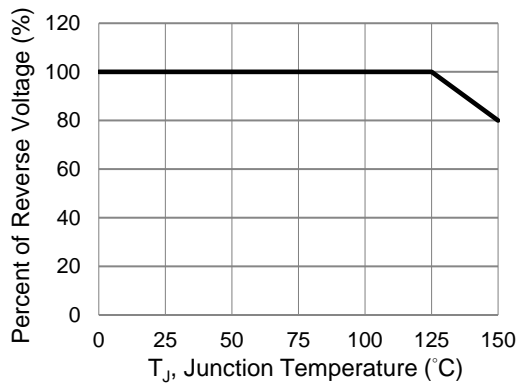


Fig.5 Operating Temperature Derating Curve

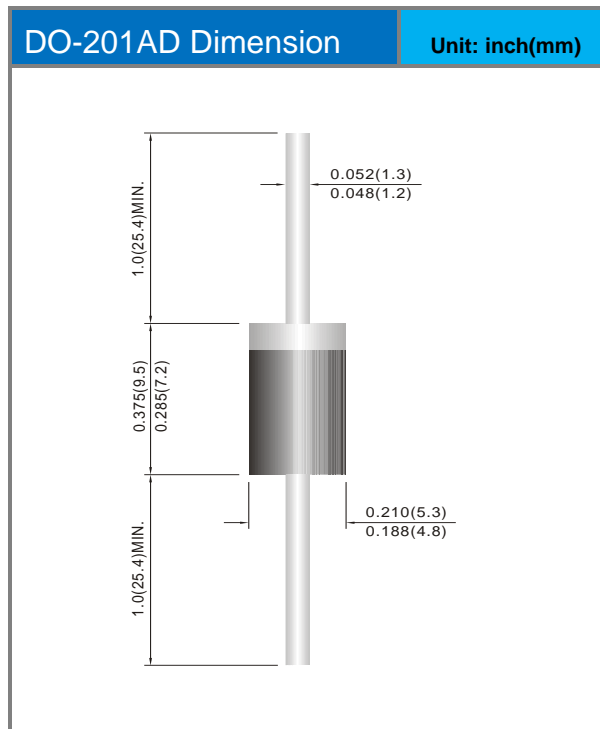


# STR5100SS

## Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
STR5100SS_AY_00301	DO-201AD	1250pcs / Ammo	STR5100SS	Halogen free RoHS compliant

## Packaging Information





## STR5100SS

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