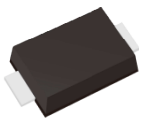
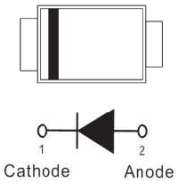
MSR2DAL

Surface Mount Super Fast Recovery Rectifier

Voltage	200 V	Current	2 A

SOD-123FL





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 : SOD-123FL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0006 ounces, 0.0173 grams

Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS Voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Current	$I_{F(AV)}$	2	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	50	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V	C_J	25	pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	200 30	°C/W
Operating Junction Temperature Range	T_J	-55~175	°C
Storage Temperature Range	T_{STG}	-55~175	°C

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Electrical Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 1 A, T_J = 25 °C	-	0.83	-	V
		I_F = 2 A, T_J = 25 °C	-	-	0.95	
		I_F = 1 A, T_J = 125 °C	-	0.67	-	
		I_F = 2 A, T_J = 125 °C	-	0.76	-	
Reverse Current	I_R	V_R = 160 V, T_J = 25 °C	-	5	-	nA
		V_R = 200 V, T_J = 25 °C	-	-	1	uA
		V_R = 200 V, T_J = 125 °C	-	1.5	-	
Maximum Reverse Recovery Time(Note 3)	T_{RR}	---	-	-	20	ns

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard pad
2. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area
3. Reverse Recovery Test Conditions: I_F=0.5A , I_R=1A Irr=0.25A

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TYPICAL CHARACTERISTIC CURVES

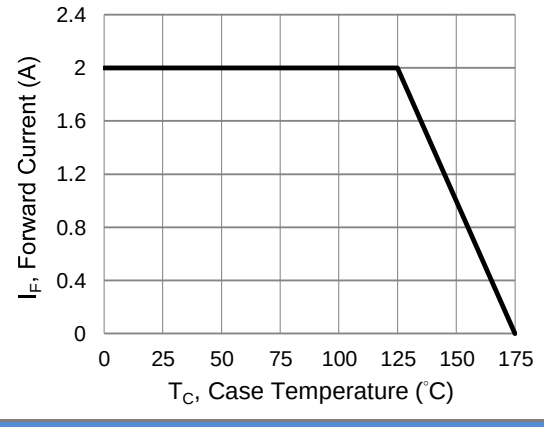


Fig.1 Forward Current Derating Curve

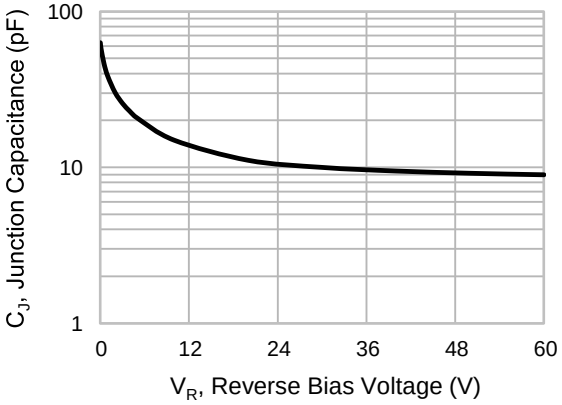


Fig.2 Typical Junction Capacitance

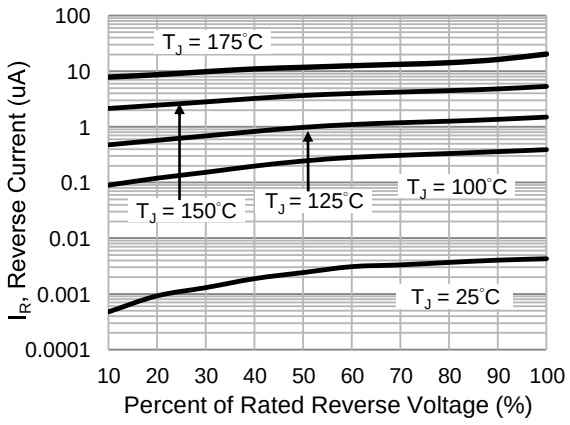


Fig.3 Typical Reverse Characteristics

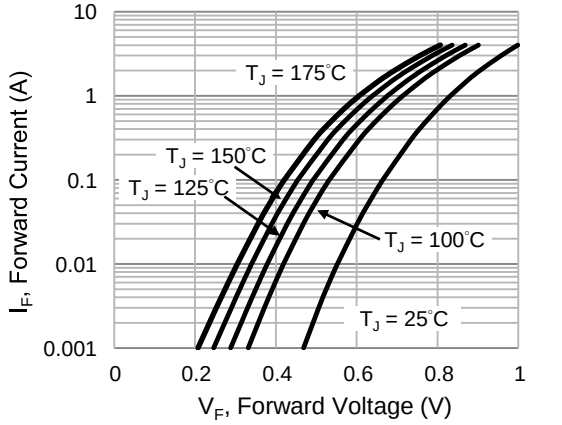


Fig.4 Typical Forward Characteristics

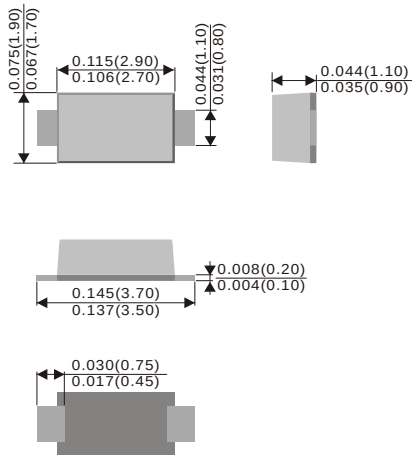
MSR2DAL

Part No. Packing Code Version

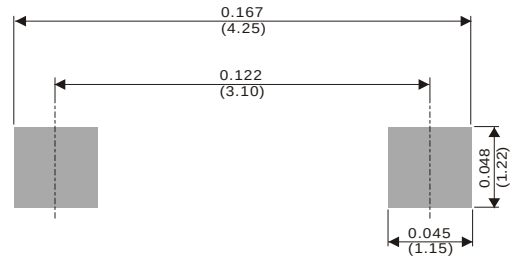
Part No. Packing Code	Package Type	Packing Type	Marking	Version
MSR2DAL_R1_00001	SOD-123FL	3K / 7" Reel	M2A	Halogen free

Packaging Information & Mounting Pad Layout

SOD-123FL Dimension — Unit: inch(mm)



SOD-123FL Pad Layout — Unit: inch(mm)



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