

#### LOW VF SCHOTTKY BARRIER RECTIFIERS

# **SL5100DS**

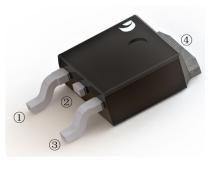
REVERSE VOLTAGE - 100 Volts FORWARD CURRENT - 5.0 Amperes

#### FEATURES

- Low power loss,high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any



## TO-252(D-PAK)





#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25  $^\circ\!\!\!\!^\circ C$  ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNIT	
Maximum repetitive peak reverse voltage		Vrrm	100	V
Maximum rms voltage		VRMS	70	V
Maximum average forward rectified current		l F(AV)	5	А
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		I FSM	150	А
Typical junction capacitance (VR=4V, f=1MHz)		CJ	620	pF
Typical thermal resistance (	Note 1)	Røjc	55	°C/W
Operating junction temperature range		TJ	-55 to + 125	°C
Storage temperature range		Тѕтс	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.

#### ELECTRICAL CHARACTERISTICS(TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITI	IONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	Vbr	I R=0.5mA		100	-	-	V
Instantaneous forward voltage per	VF	F=2A   F=3A   F= 5A	TJ=25°C	-	0.42 0.46 0.53	- 0.55	V
diode	VF	I F=2A I F=3A I F= 5A	TJ=125°C		0.38 0.41 0.49	-	V
Deverse surrent per diade		V <sub>R</sub> =70V		-	5	-	μΑ
Reverse current per diode	l r	VR=100V	TJ=25°C TJ=125°C	-	- 5.5	100 -	μA mA



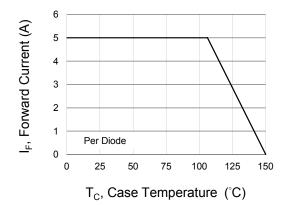
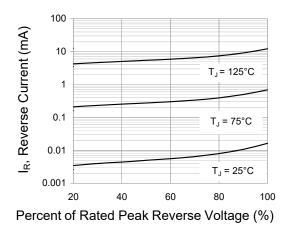


Fig.1 Forward Current Derating Curve



**Fig.3 Typical Reverse Characteristics** 

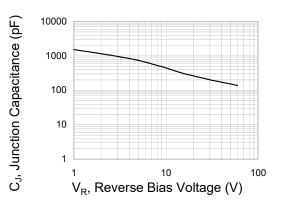
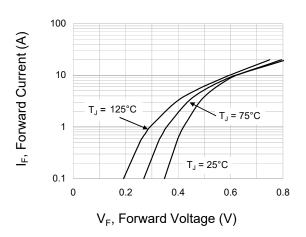


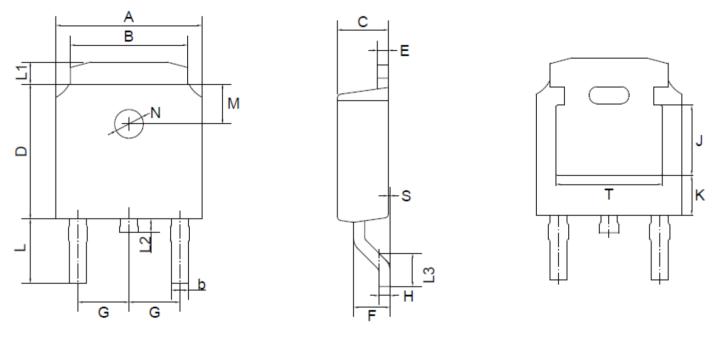
Fig.2 Typical Junction Capacitance



**Fig.4 Typical Forward Characteristics** 



## TO-252(D-PAK) Package Outline Dimensions



UN	IT	Α	В	b	С	D	Е	F	G	н	L	L1	L2	L3	S	М	N	J	К	Т
mm	max	6.7	5.5	0.8	2.5	6.3	0.6	1.8	2.29	0.55	3.1	1.2	1.0	1.75	0.1	1.8	1.3	3.16	1.80	4.83
mm	min	6.3	5.1	0.3	2.1	5.9	0.4	1.3	TYPICAL	0.45	2.7	0.8	0.6	1.40	0.0	TYPICAL	TYPICAL	ref.	ref.	ref.
mil	max	264	217	31	98	248	24	71	90	22	122	47	39	69	4	71	51	124	71	190
	min	248	201	12	<mark>8</mark> 3	232	16	51	TYPICAL	18	106	31	24	55	0	TYPICAL	TYPICAL	ref.	ref.	ref.

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