

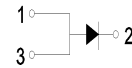
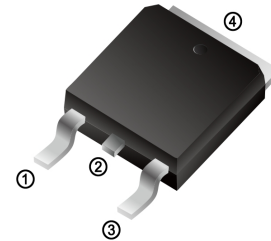


# SL1060DS

## LOW VF SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **60** Volts  
 FORWARD CURRENT - **10.0** Amperes

### TO-252(D-PAK)



### FEATURES

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

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SL1060DS	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	60	V
Maximum RMS voltage	$V_{RMS}$	42	V
Maximum DC Blocking Voltage	$V_{DC}$	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	150	A
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	45	°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150	°C

(1) Mounted on infinite heat sink.

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	Units
Breakdown voltage	$V_{BR}$	$I_R = 0.5mA$	60	-	-	V
Instantaneous forward voltage	$V_F$	$I_F = 10A$ $T_J = 25^\circ C$ $I_F = 10A$ $T_J = 125^\circ C$	-	- 0.52	0.60 0.56	V
Reverse current	$I_R$	$V_R = 60V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	-	-	500 100	uA mA



**Characteristic Curves** ( $T_A=25\text{ }^\circ\text{C}$  unless otherwise noted)

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

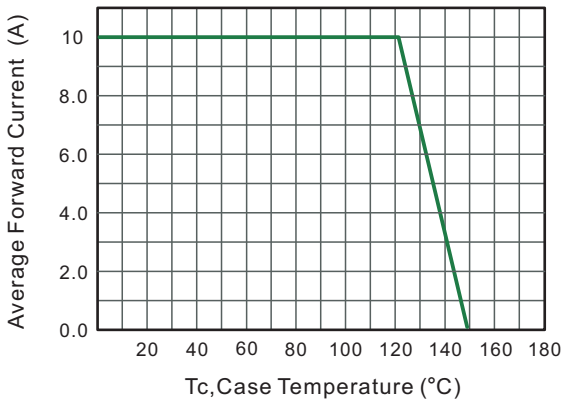


Fig.2 Typical Reverse Characteristics

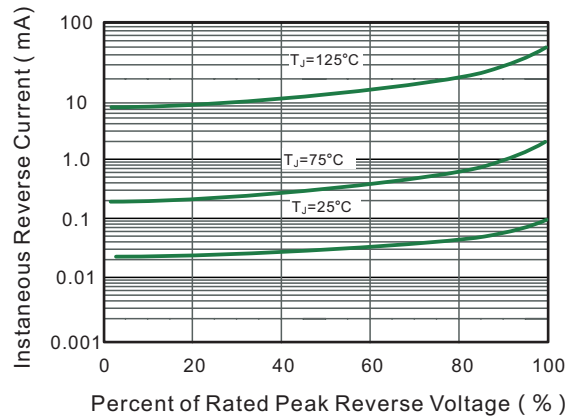


Fig.3 Typical Forward Characteristic

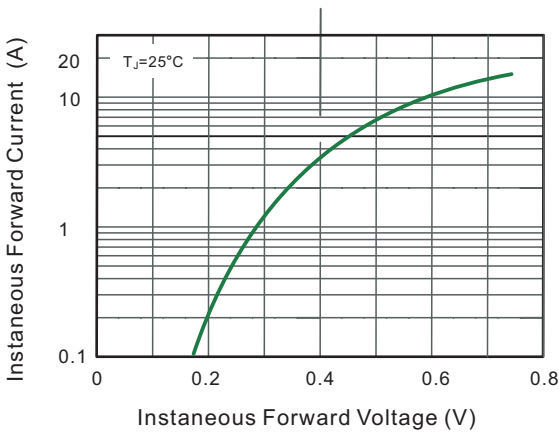


Fig.4 Typical Junction Capacitance

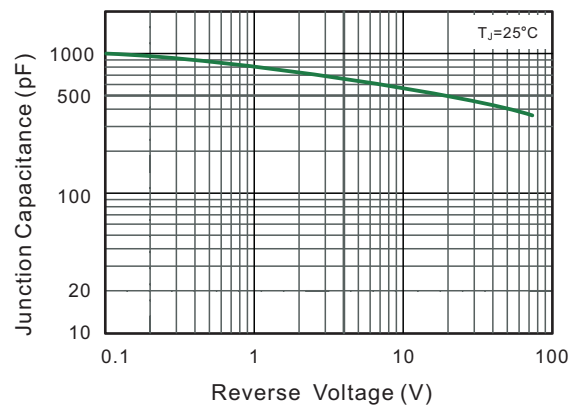


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

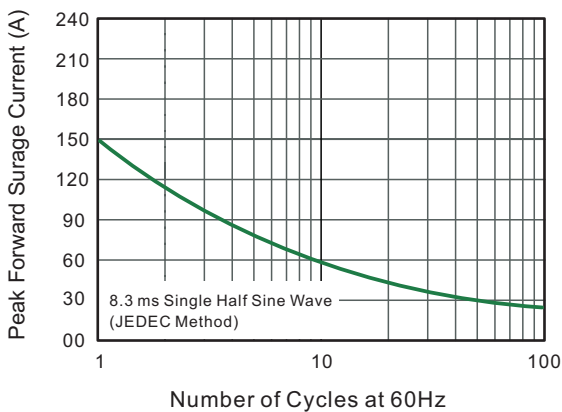
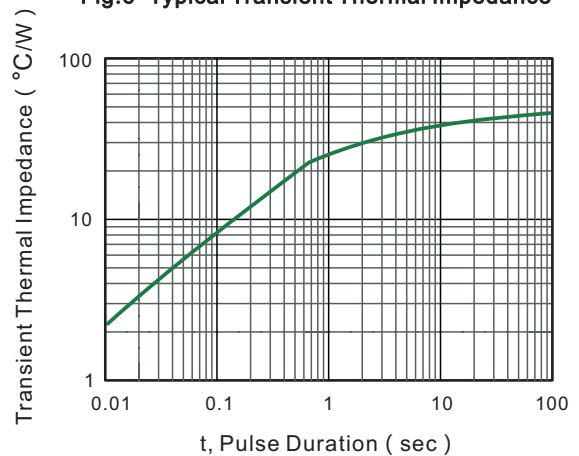
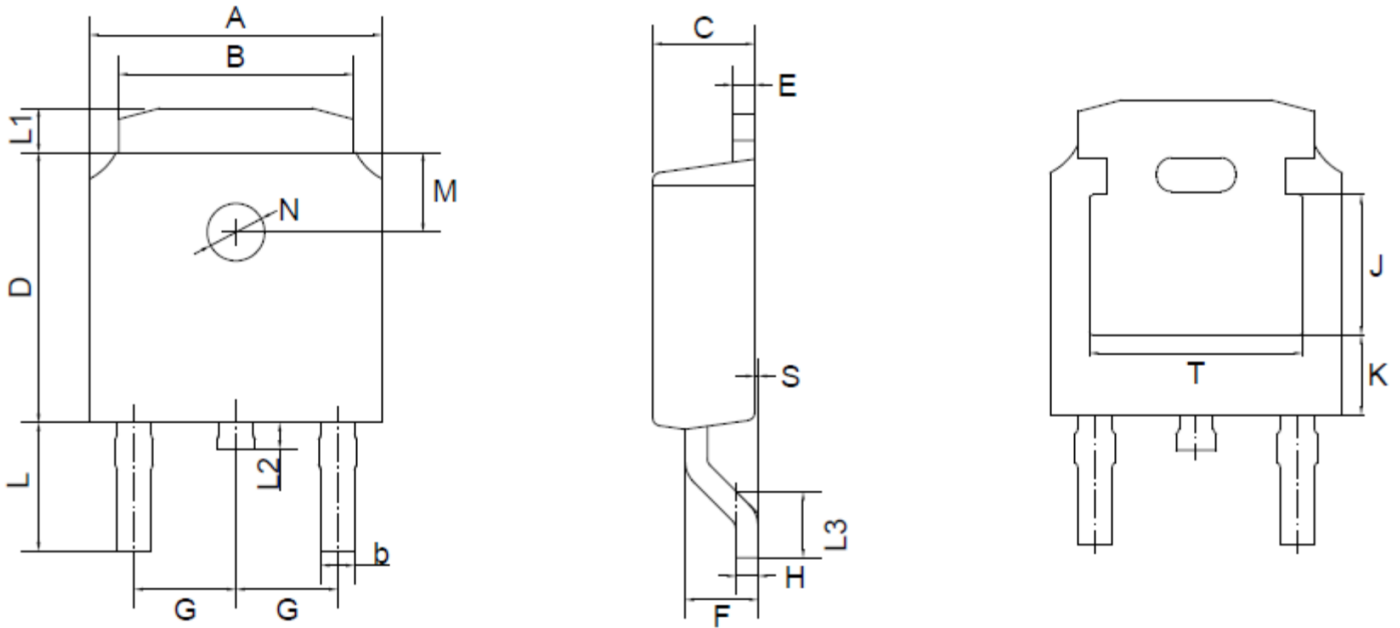


Fig.6- Typical Transient Thermal Impedance





TO-252(D-PAK) Package Outline Dimensions



TO-252(D-PAK) mechanical data

UNIT		A	B	b	C	D	E	F	G	H	L	L1	L2	L3	S	M	N	J	K	T
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
	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	83	232	16	51	TYPICAL	18	106	31	24	55	0	TYPICAL	TYPICAL	ref.	ref.	ref.

