

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 100 V

Forward Current - 10 A

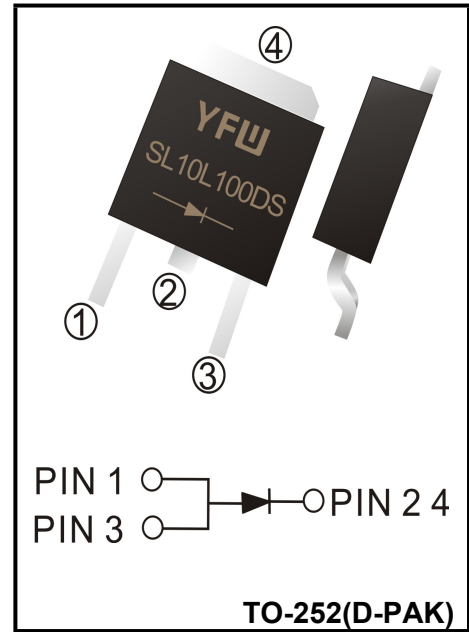


FEATURES

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ High surge capability
- ◆ High temperature soldering guaranteed
- ◆ Mounting position: any
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: TO-252(D-PAK)
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.32g / 0.011oz



Maximum Ratings and Electrical characteristics
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	SL10L100DS	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 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}	145	A
Typical Junction Capacitance ⁽¹⁾	C_j	620	pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	45	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

- (1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
- (2) Mounted on infinite heat sink.

Maximum Ratings and Electrical characteristics
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	Test Conditions	Min	Typ	Max	Units
Breakdown voltage per diode	V_{BR}	$I_R = 0.5mA$	100	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F = 2A$	-	0.43	-	V
		$I_F = 5A$ $T_J = 25^\circ C$	-	0.49	-	
		$I_F = 10A$	-	0.65	0.70	
		$I_F = 2A$	-	0.38	-	V
		$I_F = 5A$ $T_J = 125^\circ C$	-	0.45	-	
		$I_F = 10A$	-	0.64	-	
Reverse current per diode	I_R	$V_R = 70V$	-	5	-	uA
		$V_R = 100V$ $T_J = 25^\circ C$	-	-	50	uA
		$V_R = 100V$ $T_J = 125^\circ C$	-	5.5	-	mA

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

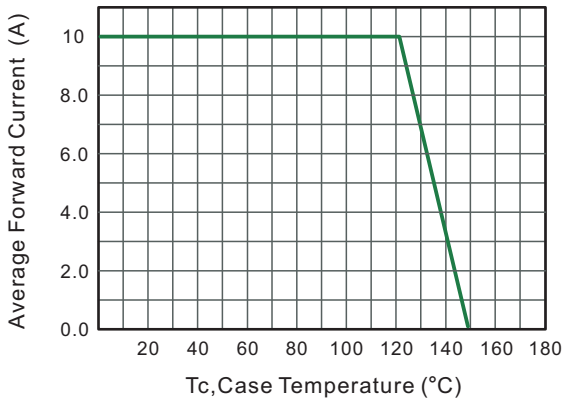


Fig.2 Typical Reverse Characteristics

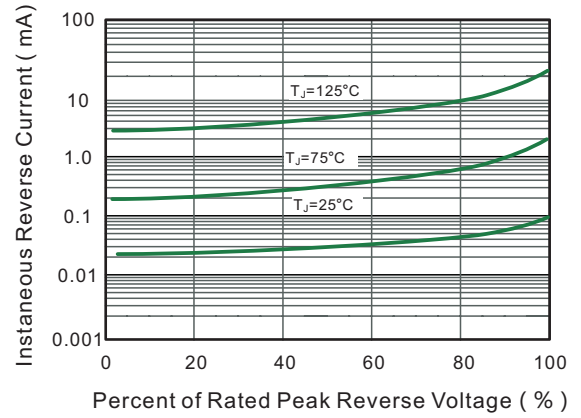


Fig.3 Typical Forward Characteristic

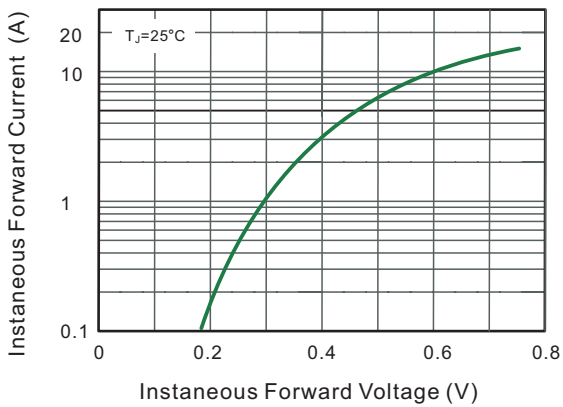


Fig.4 Typical Junction Capacitance

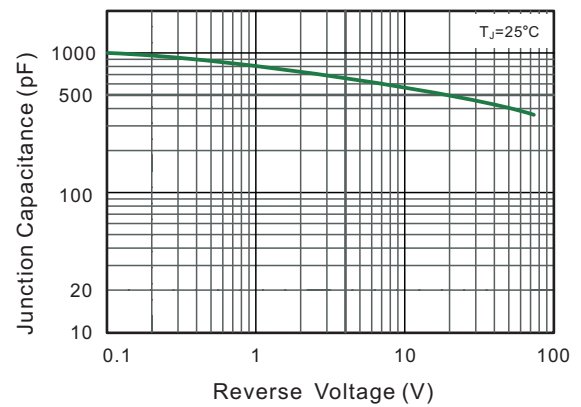


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

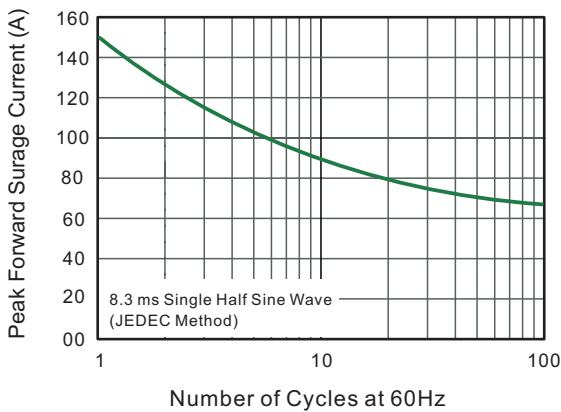
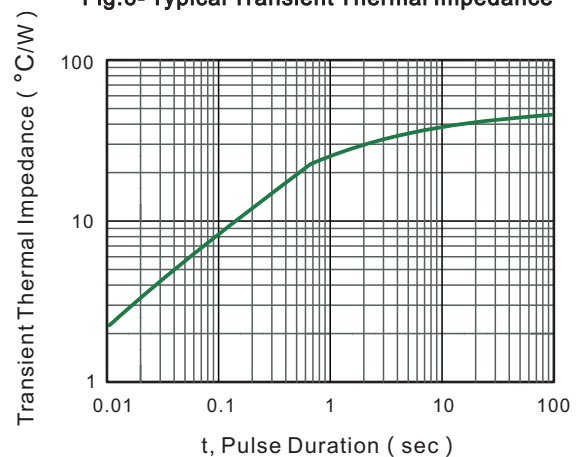
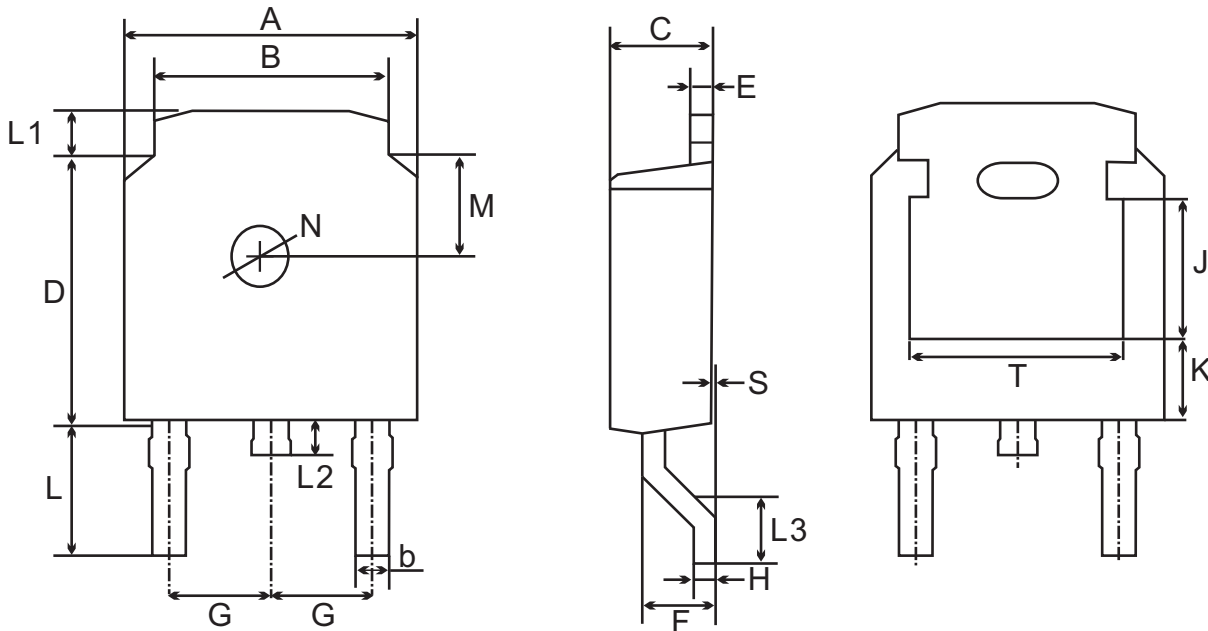


Fig.6- Typical Transient Thermal Impedance



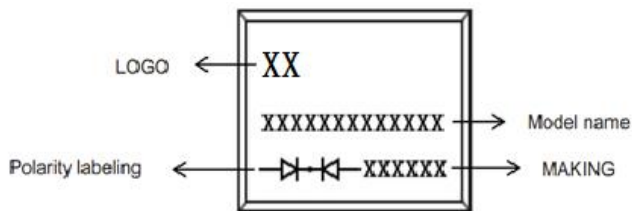
Package Outline

TO-252(D-PAK)



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 TYPICAL	0.55	3.1	1.2	1.0	1.75	0.1	1.8 TYPICAL	1.3 TYPICAL	3.16	1.80	4.83
	min	6.3	5.1	0.3	2.1	5.9	0.4	1.3		0.45	2.7	0.8	0.6	1.40	0.0			ref.	ref.	ref.
mil	max	264	217	31	98	248	24	71	90 TYPICAL	22	122	47	39	69	4	71 TYPICAL	51 TYPICAL	124	71	190
	min	248	201	12	83	232	16	51		18	106	31	24	55	0			ref.	ref.	ref.

Marking on the body



MAKING:

XXXXXX

- Assembly code (e.g : AB,CD,.....)
- Material –Code
(H:No halogen A:ordinary)
- Week – code (WW:01~52)
- Year – code
(Y: Last digit of year & A:2012,B:2013...)

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
TO-252(D-PAK)	Tape/Reel,13"reel	2500	EIA-481-1