SD10E100TSL

10A/100V Low VF Schottky Rectifier

FEATURES

- ✧High current capability, low forward voltage
- ✧Excellent high temperature stability
- ✧Low power loss, and high efficiency
- ✧High forward surge capability
- ✧RoHS compliant, and Halogen free

MACHANICAL DATA

- ✧Case: TO-277B small outline plastic package
- ✧Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧Molding Compound Flammability Rating:UL94-0
- ✧High temperature soldering guaranteed: 260°C /10second
- ✧Packed with FRP substrate and epoxy underfilled

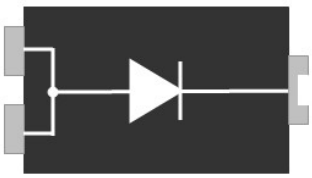
ORDERING INFORMATION

- ✧Device: SD10E100TSL
- ✧Package: TO-277B
- ✧Marking: 10TA0
- ✧Material: Halogen free
- ✧Packing: Tape & 13'' Reel
- ✧Quantity per reel: 5,000pcs

APPLICATIONS

- ✧Switching mode power supply applications
- ✧Portable equipment battery applications
- ✧High frequency rectification
- ✧DC/DC converter
- ✧Polarity protection applications

PIN CONFIGURATION



PACKAGE OUTLINE

SD10E100TSL

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ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)			
Symbol	**Parameter**	**Value**	**Units**
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
$I_{F(AV)}$	Average Forward Current	10	A
I_{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave	200	A
T_J & T_{STG}	Junction and Storage Temperature	-50~+150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)						
Symbol	**Parameter**	**Test Condition**	**Min**	**Typ**	**Max**	**Units**
V_F	Forward Voltage	I_F = 3A Ta=25°C		0.43		V
		I_F = 5A Ta=25°C		0.51		V
		I_F = 10A Ta=25°C		0.59	0.64	V
		I_F = 15A Ta=25°C		0.67	0.74	V
		I_F = 3A Ta=125°C		0.36		V
		I_F = 5A Ta=125°C		0.44		V
		I_F = 10A Ta=125°C		0.57	0.62	V
		I_F = 15A Ta=125°C		0.62	0.68	V
V_R	Reverse Breakdown Voltage	I_R = 0.5mA	100	110		V
I_R	Reverse Leakage Current	V_R = 100V		20	80	A
C_J	Junction Capacitance	f=1MHz, V_R=4V		1000		pF
$R_{th(JA)}$	Thermal Resistance Junction to Ambient (note 1)			98		°C/W
$R_{th(JL)}$	Thermal Resistance Junction to Lead (note 1)			19		°C/W

Note 1: Units mounted on recommended P.C.B. 1 oz. pad layout

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

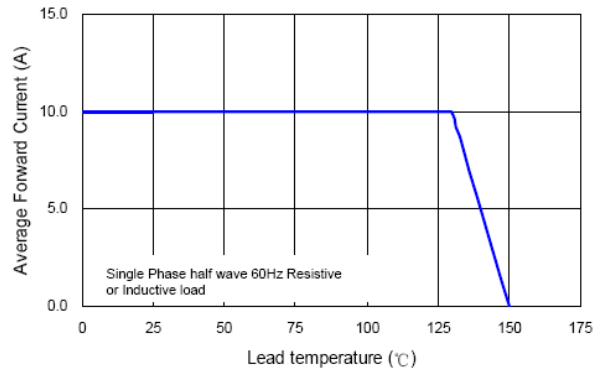


Fig 2 Typical Instantaneous Forward Characteristics

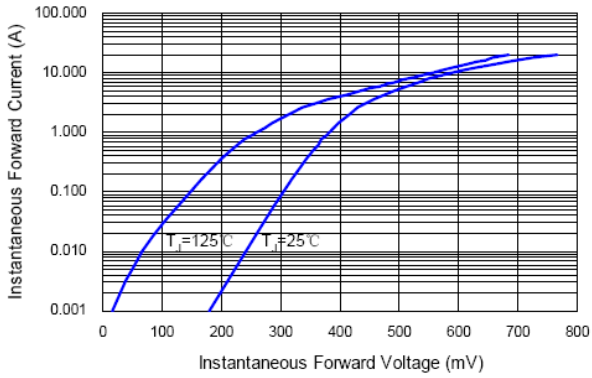


Fig 3 Max. Non-repetitive Forward Surge Current

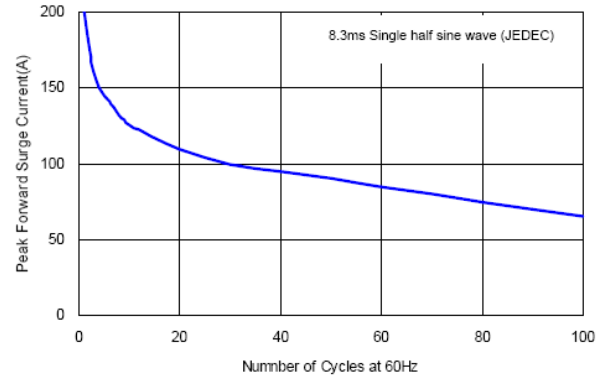


Fig 4 Typical Reverse Characteristics

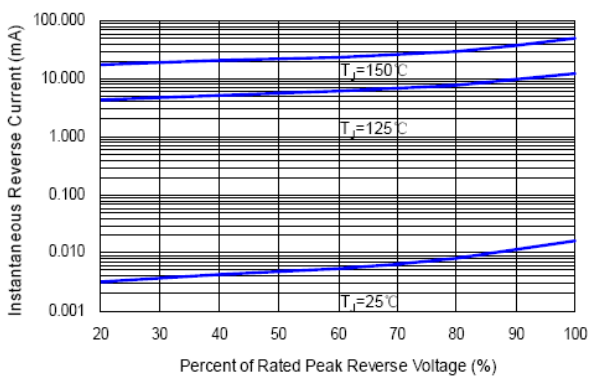
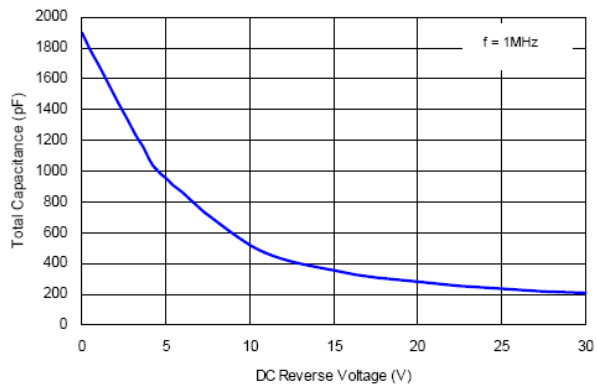


Fig 5 Total Capacitance vs. Reverse Voltage



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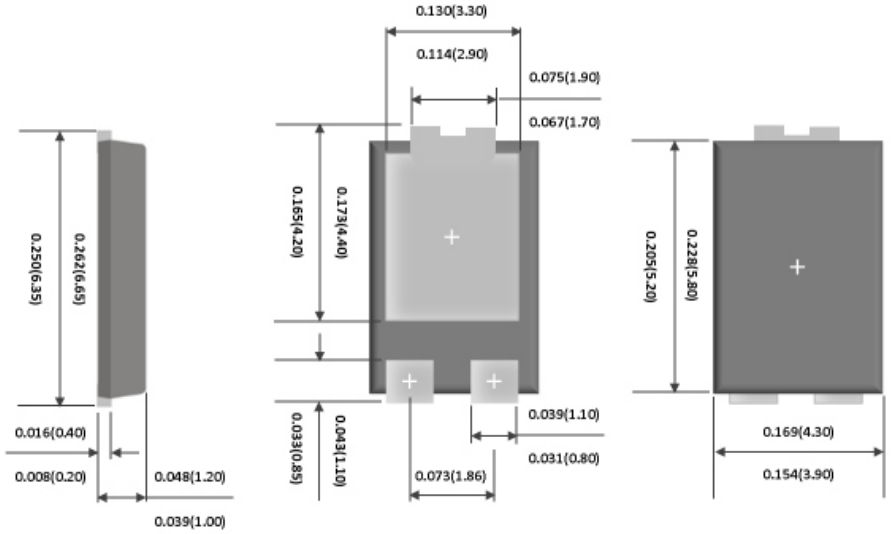
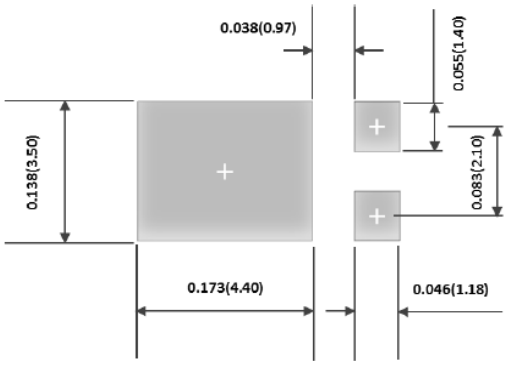
TO-277B PACKAGE OUTLINE DIMENSIONS



unit: mm

FOOT PRINT RECOMMENDATION



unit: mm

MARKING CODE

10TA0	YYYY	XXX
Device name	Trace code	Date code