

SDS10F150S

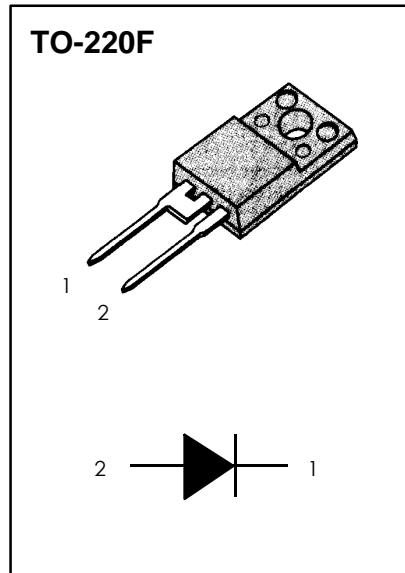
POWER RECTIFIER

FEATURES

- * High Voltage and High Reliability
- * High Speed Switching ($T_{rr}=135ns$)
- * Low V_F in Turn on ($V_F=1.3V$ at $I_F=10A$)
- * Suitable for Damper Diode in Horizontal Deflection Circuits

MECHANICAL CHARACTERISTICS

- * Case: Epoxi, Molded
- * Easy to Mount on Circuit Board
- * Shipped 50units per Plastic Tube
- * Marking: D10F150S



MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V_{RRM}	1500	V
Average Rectified Forward Current, $T_C=125^\circ C$	$I_{F(AV)}$	10	A
Nonrepetitive Peak Surge Current (Halfwave, Single Phase, 60Hz)	I_{FSM}	100	A
Operating Junction and Storage Temperature	T_J, T_{STG}	-65 ~ 125	$^\circ C$
Controlled Avalanche Energy	W_{AVAL}	20	mJ

THERMAL CHARACTERISTICS

Thermal Resistance- Junction to Case	$R_{\theta JC}$	5.0	$^\circ C/W$
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ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Typ	Max	Units
Maximum Instantaneous Forward Voltage (1) ($I_F = 10A, T_J = 125\text{ }^\circ\text{C}$) ($I_F = 10A, T_J = 25\text{ }^\circ\text{C}$)	V_F	1.1 1.3	1.6	V
Maximum Instantaneous Reverse Current (1) (Rated DC Voltage, $T_J = 125\text{ }^\circ\text{C}$) (Rated DC Voltage, $T_J = 25\text{ }^\circ\text{C}$)	I_R	8 1	80 10	μA
Maximum Reverse Recovery Time ($I_F = 1.0A, di/dt = 50A/\mu\text{s}$)	trr	135	170	ns
Maximum Forward Recovery Time ($I_F = 6.5A, di/dt = 50A/\mu\text{s}$)	tfr	150	250	ns
Maximum Forward Recovery Voltage	V_{FRM}	10	14	V

(1) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$

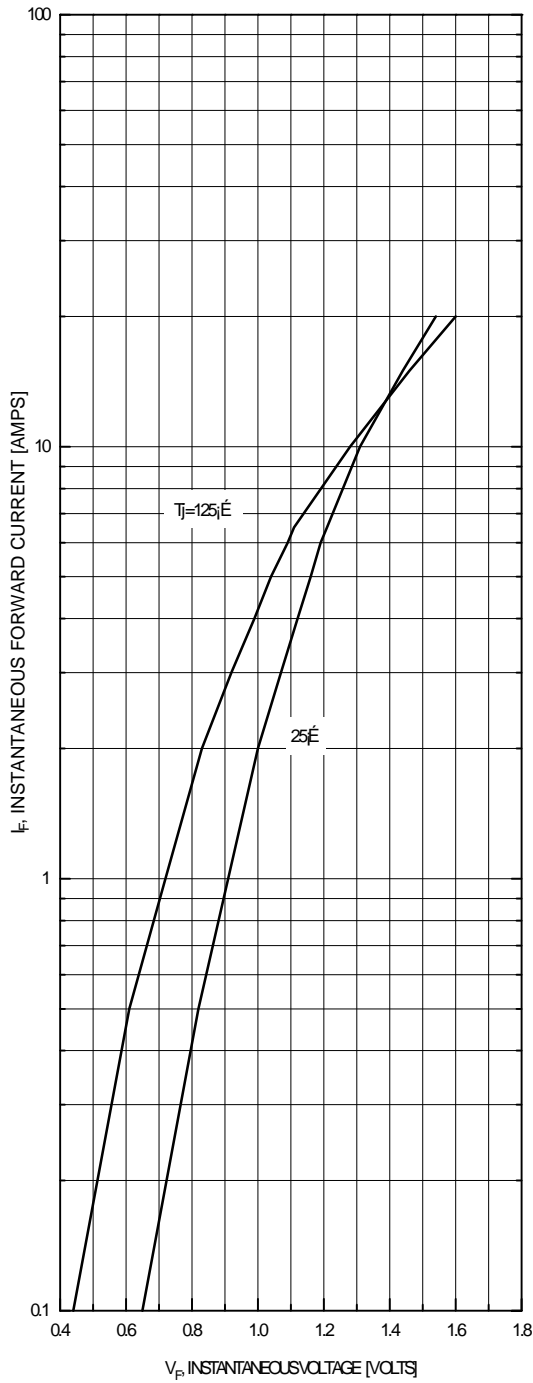


Figure 1. Typical Forward Voltage

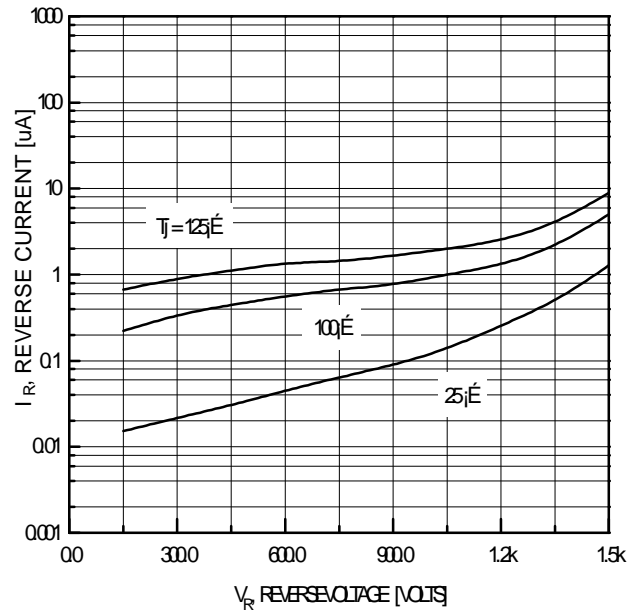


Figure 2. Typical Reverse Current

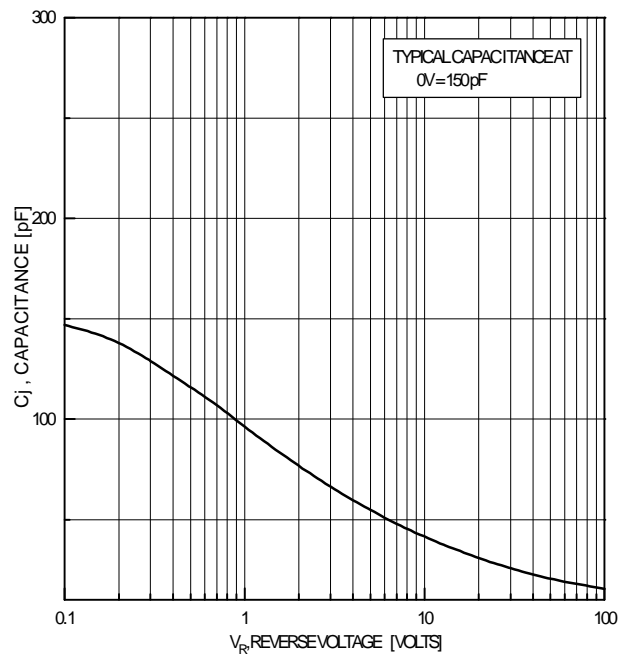


Figure 3. Typical Capacitance

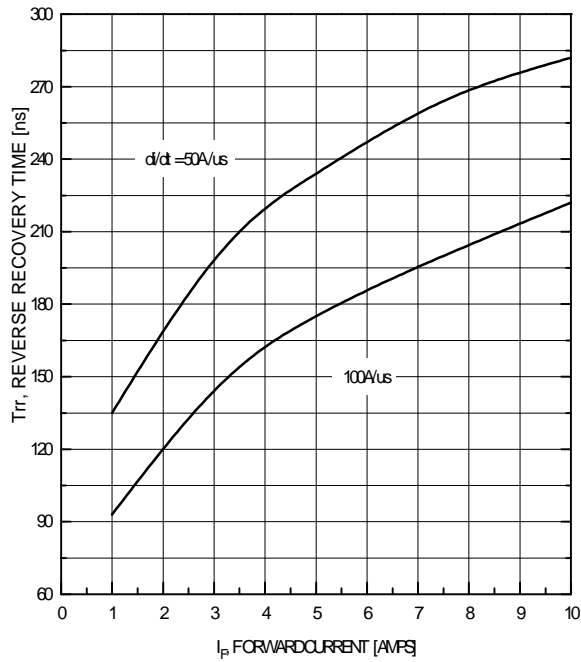


Figure 4. Typical Reverse Recovery Time

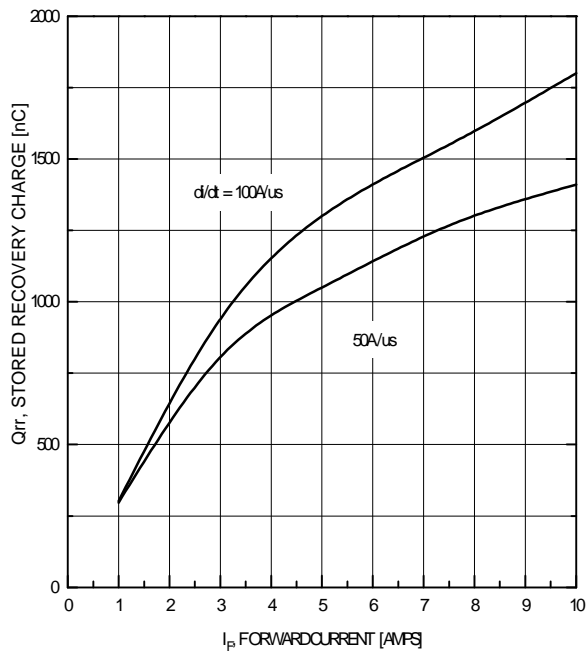


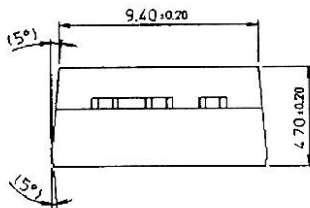
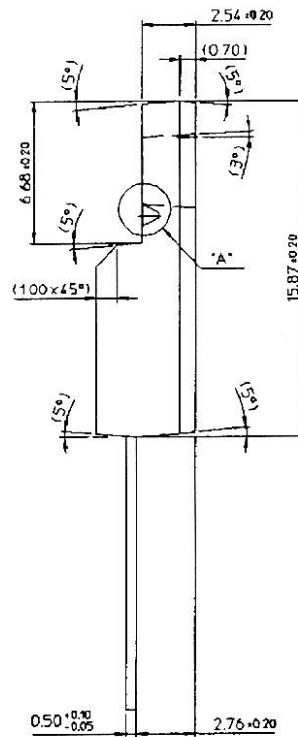
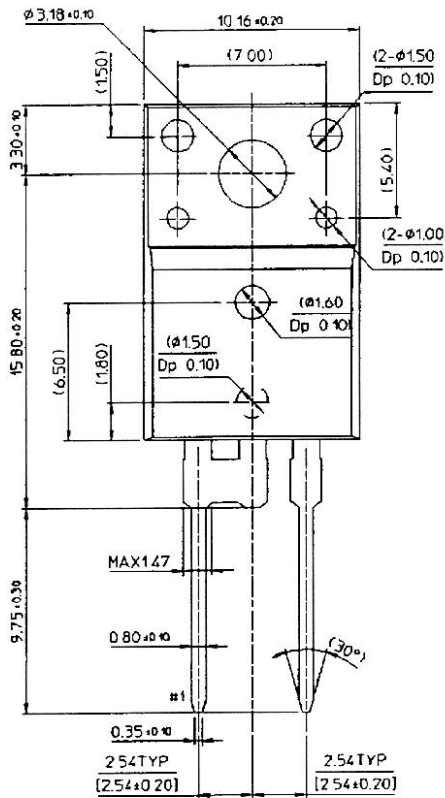
Figure 5. Typical Stored Recovery Charge

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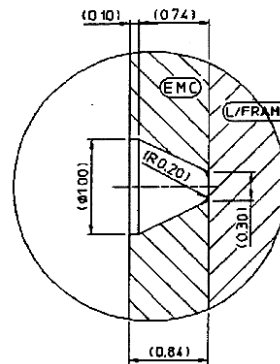
POWER RECTIFIER

PACKAGE DIMENSION

Unit : mm



DETAIL "A"



NOTE

- 1. THESE DIMENSIONS DO NOT INCLUDE MOLD PROTRUSION
- 2. () IS REFERENCE
- 3. [] IS ASSY OUT QUALITY

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