

SF61 THRU SF66

SUPER FAST RECTIFIER

Reverse Voltage - 50 to 400 V

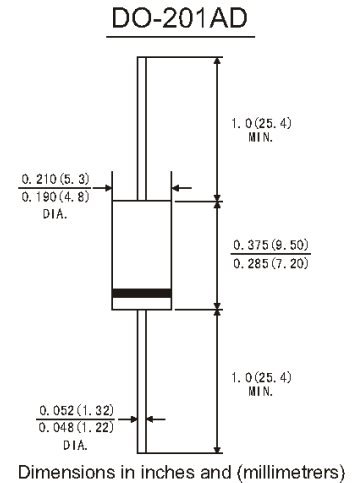
Forward Current - 6 A

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Mechanical Data

- **Case:** JEDEC DO-201AD molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any



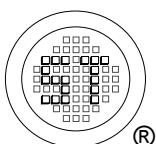
Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	SF61	SF62	SF63	SF64	SF65	SF66	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current 0.375"(9.5 mm) Lead Length at $T_A = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	6						A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150						A
Maximum Forward Voltage at 5 A	V_F	0.975				1.3		V
Maximum DC Reverse Current $T_A = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100\text{ }^\circ\text{C}$	I_R	5 100						μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	35						ns
Typical Junction Capacitance ²⁾	C_J	50						pF
Typical Thermal Resistance	$R_{\theta JA}$	20						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_S	- 65 to + 150						$^\circ\text{C}$

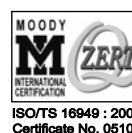
¹⁾ Reverse recovery test conditions: $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{RR} = 0.25\text{ A}$.

²⁾ Measured at 1 MHz and applied reverse voltage of 4 Volts..



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 14/07/2008 J

SF61 THRU SF66

FIG.1-MAXIMUM AVERAGE FORWARD CURRENT DERATING

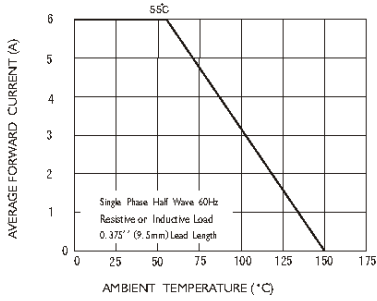


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

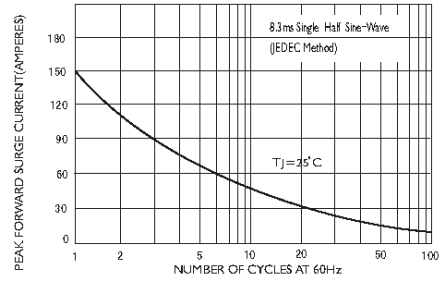


FIG.3-TYPICAL FORWARD CHARACTERISTICS

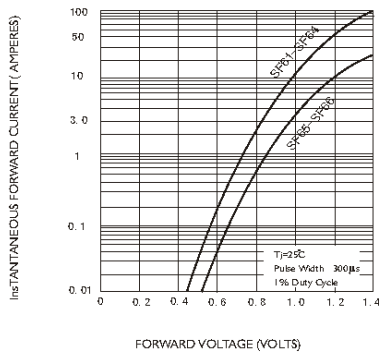


FIG.4-TYPICAL REVERSE CHARACTERISTICS

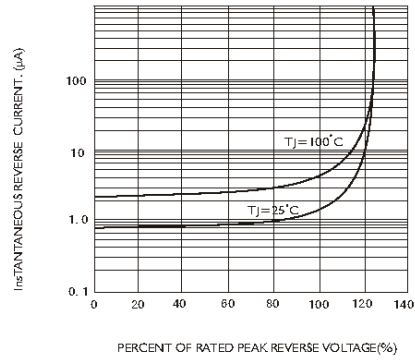
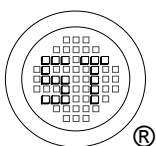
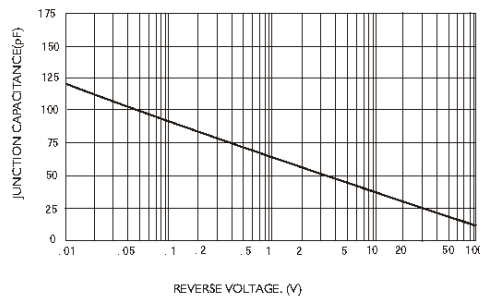
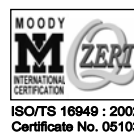


FIG.5-TYPICAL JUNCTION CAPACITANCE



SEMTECH ELECTRONICS LTD.
 (Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
 Certificate No. 05103

ISO 14001:2004
 Certificate No. 71116

ISO 9001:2000
 Certificate No. 0506098