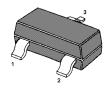
## SILICON PLANAR DUAL SWITCHING DIODE

High Speed Switching Dual Diodes





Marking Code: A4 SOT-23 Plastic Package

## Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

Absolute maximum rutings (	a,	I		T	
Parameter			Symbol	Value	Unit
Peak Repetitive Reverse Voltage			$V_{RRM}$	60	V
Continuous Reverse Voltage			$V_R$	50	V
Forward Current (DC)	Single	Diode Loaded	I <sub>F</sub>	215	mA
	Doubl	e Diode Loaded		125	
Repetitive Peak Forward Curre	ent		I <sub>FRM</sub>	450	mA
Non-Repetitive Peak Forward Current		at t = 1 μs		4	
		at t = 1 ms	$I_{FSM}$	1	Α
		at t = 1 s		0.5	
Power Dissipation			$P_d$	350	mW
Operating Junction Temperature Range			T <sub>J</sub>	150	°C
Storage Temperature Range			Ts	- 55 to + 150	°C

## Characteristics at $T_a = 25$ °C

Parameter	Symbol	Max.	Unit
Forward Voltage			
at I <sub>F</sub> = 1 mA	$V_{F}$	715	mV
at I <sub>F</sub> = 10 mA	$V_{F}$	855	mV
at I <sub>F</sub> = 50 mA	$V_{F}$	1	V
at I <sub>F</sub> = 150 mA	V <sub>F</sub>	1.25	V
Reverse Current			
at V <sub>R</sub> = 25 V	I <sub>R</sub>	30	nA
at V <sub>R</sub> = 50 V	I <sub>R</sub>	0.1	μΑ
at V <sub>R</sub> = 25 V, T <sub>J</sub> = 150 °C	I <sub>R</sub>	30	μΑ
at V <sub>R</sub> = 50 V, T <sub>J</sub> = 150 °C	I <sub>R</sub>	100	μΑ
Diode Capacitance at f = 1 MHz	C <sub>d</sub>	2	pF
Reverse Recovery Time at $I_F = I_R = 10$ mA to $I_R = 1$ mA, $R_L = 100$ $\Omega$	t <sub>rr</sub>	4	ns

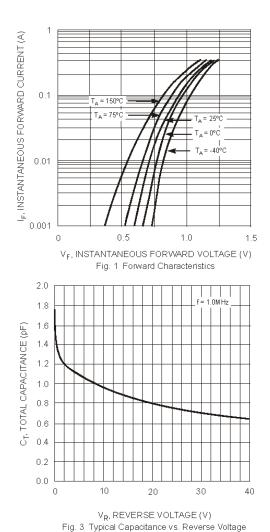




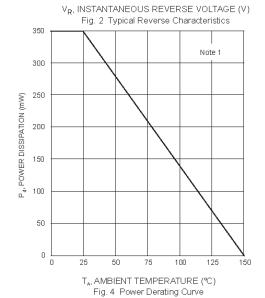




SEMTECH ELECTRONICS LTD. (Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



10000 IR, INSTANTANEOUS REVERSE CURRENT (nA) \_ = 125°C 1000 100  $T_{\Delta} = 75^{\circ}C$ . Γ<sub>^</sub> = 25°C 10 = -40°C 0.1 40 60 100





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Dated: 10/10/2008