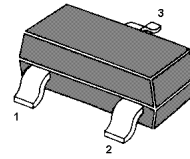
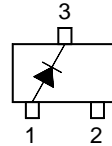


# MMBD193

## SILICON EPITAXIAL PLANAR DIODE

### Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



Marking Code: **5D**  
SOT-23 Plastic Package

### Applications

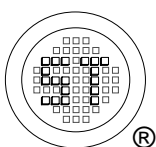
- Ultra high speed switching application

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	$V_{RM}$	85	V
Reverse Voltage	$V_R$	80	V
Average Forward Current	$I_O$	100	mA
Maximum Peak Forward Current	$I_{FM}$	300	mA
Surge Current (10 ms)	$I_{FSM}$	2	A
Power Dissipation	$P_{tot}$	150	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$	$V_F$	1.2	V
Reverse Current at $V_R = 80\text{ V}$	$I_R$	0.5	$\mu\text{A}$
Total Capacitance at $V_R = 0$ , $f = 1\text{ MHz}$	$C_T$	3	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$	$t_{rr}$	4	ns



**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

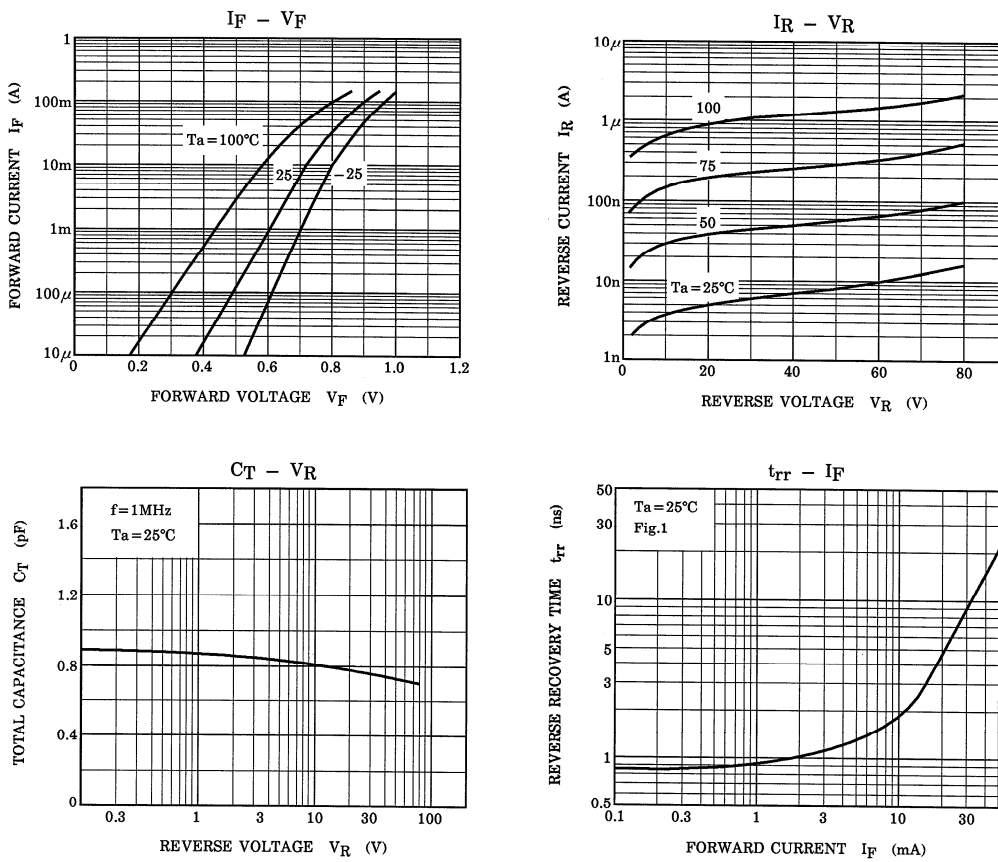


ISO 14001:2004  
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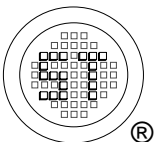
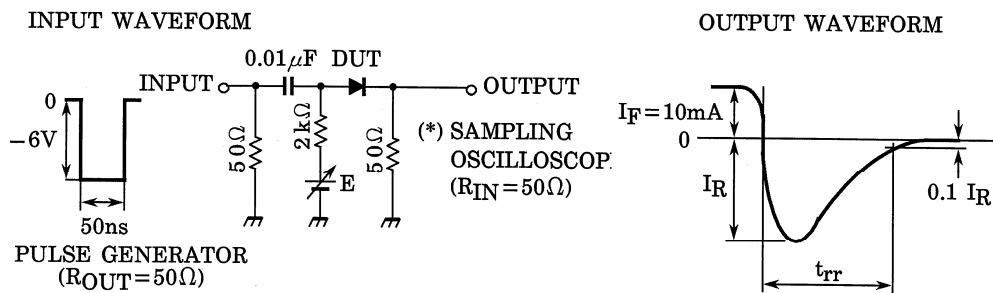


ISO 9001:2000  
Certificate No. 0506088

Dated : 10/10/2008



**Fig.1 Reverse recovery time ( $t_{rr}$ ) test circuit**



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