

High Voltage Switching Diode

- Device Marking: JR

ORDERING INFORMATION

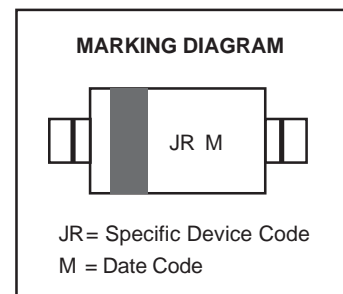
Device	Package	Shipping
FDS20U	SOD-323	3000/Tape & Reel

Preferred: devices are recommended choices for future use and best overall value.



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	250	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	625	mAdc



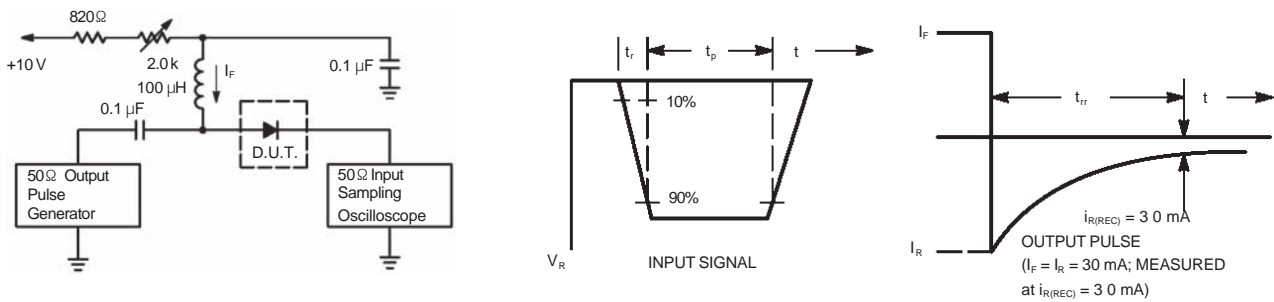
THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A = 25^\circ\text{C}$	P_D	200	mW
Derate above 25°C		1.57	mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

*FR-5 Minimum Pad

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Voltage Leakage Current ($V_R = 200$ Vdc)	I_R	-	1.0	μAdc
($V_R = 200$ Vdc, $T_J = 150^\circ\text{C}$)		-	100	
Reverse Breakdown Voltage ($I_{BR} = 100$ μAdc)	$V_{(BR)}$	250	-	Vdc
Forward Voltage ($I_F = 100$ mAdc)	V_F	-	1000	mV
($I_F = 200$ mAdc)		-	1250	
Diode Capacitance ($V_R = 0$, $f = 1.0$ MHz)	C_D	-	5.0	pF
Reverse Recovery Time ($I_F = I_R = 30$ mAdc, $R_L = 100$ Ω)	t_{rr}	-	50	ns



- Notes:**
1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 30 mA.
 2. Input pulse is adjusted so $I_{R(\text{peak})}$ is equal to 30 mA.
 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

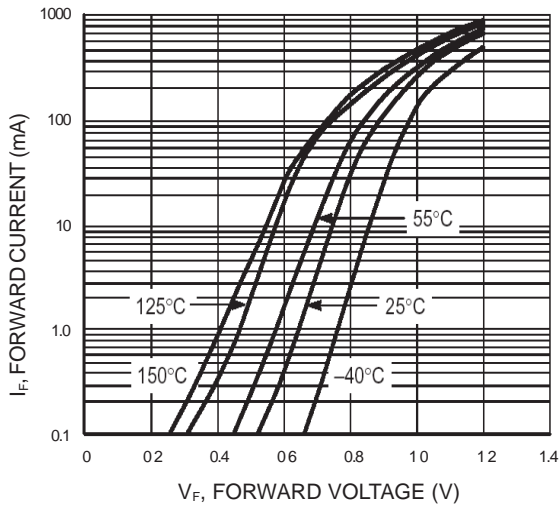


Figure 2. Forward Current

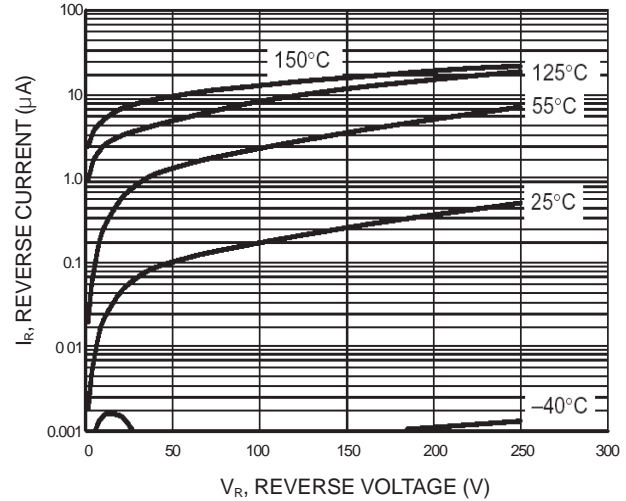


Figure 3. Leakage Current

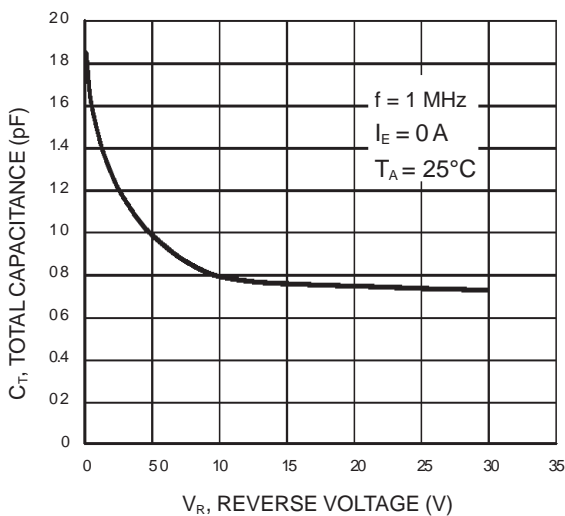


Figure 4. Total Capacitance

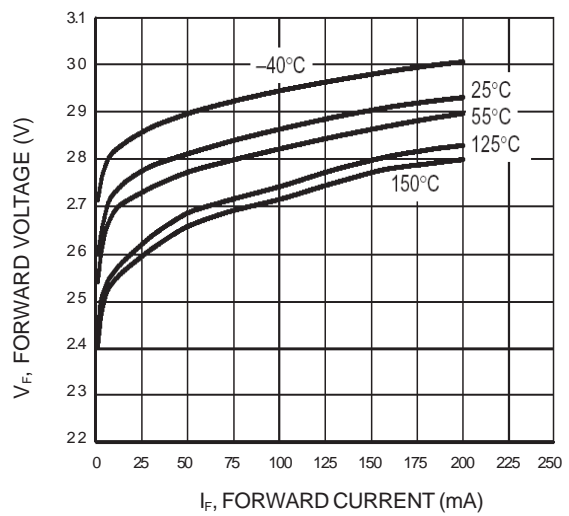


Figure 5. Forward Voltage