



Surface Mount Switching Diodes

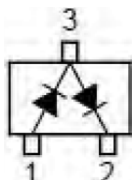
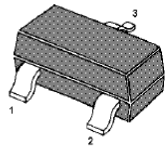
Reverse Voltage - 75 V
Power Dissipation - 350 mWatts

FEATURES

- Fast switching speed
- For general purpose switching applications
- High conductance

MARKING: A7

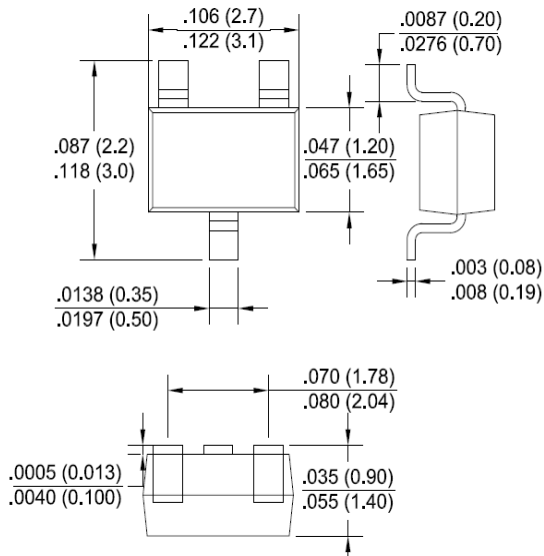
SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

Note: Products with logo or are made by HY Electronic (Cayman) Limited.

SOT-23



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings @T_A=25°C

Parameter	Symbol	Limits	Unit	
Reverse Breakdown Voltage	V _{RM}	85	V	
Continuous Reverse Voltage	V _R	75	V	
Continuous Forward Current (Double Diode Loaded)	I _F	125	mA	
Continuous Forward Current (Single Diode Loaded)	I _F	215	mA	
Repetitive Peak Forward Current	I _{FRM}	450	mA	
Non-repetitive Peak Forward Surge Current @t = 1 s	I _{FSM}	0.5	A	
		@t = 1 ms		1.0
		@t = 1 us		4.5
Power Dissipation	P _{tot}	350	mW	
Junction Temperature	T _j	150	°C	
Storage Temperature Range	T _{STG}	-65 to +150	°C	

Characteristics @T_A=25°C

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Forward Voltage	V _{F1}	I _F = 1mA		0.715	V
	V _{F2}	I _F = 10mA		0.855	
	V _{F3}	I _F = 50mA		1.0	
	V _{F4}	I _F = 150mA		1.25	
Reverse current	I _R	V _R = 25 V		30	nA
		V _R = 75 V		1	uA
		V _R = 25 V, T _j = 150 OC		30	uA
		V _R = 75 V, T _j = 150 OC		50	uA
Capacitance between terminals	C _d	V _R =0V, f=1MHz		1.5	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA; I _{rr} =0.1xI _R , R _L =100Ω		4	nS

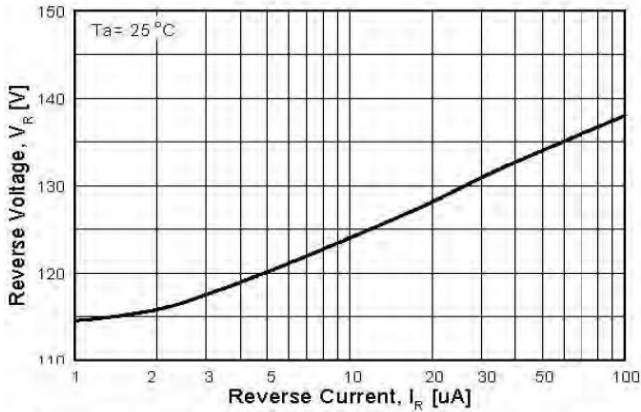


Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100uA

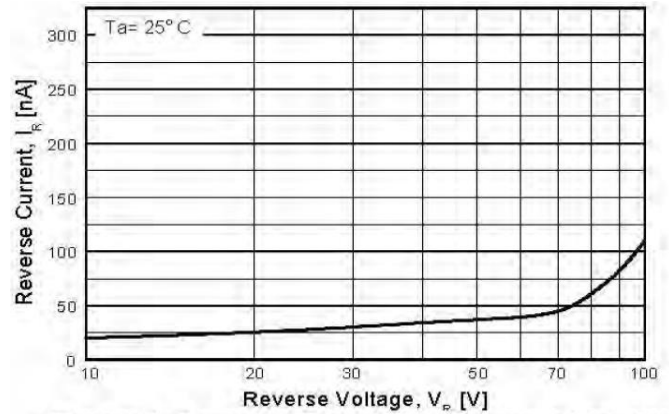


Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100 V

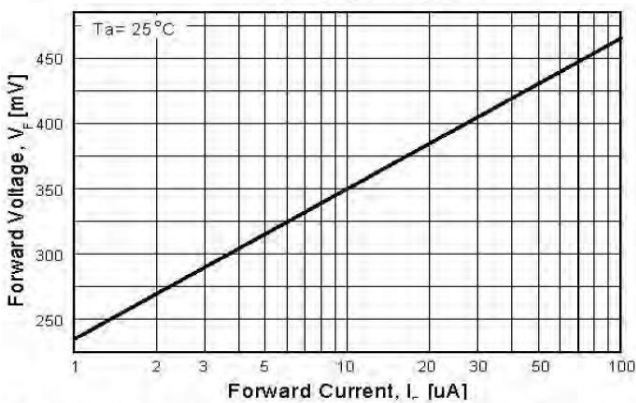


Figure 3. Forward Voltage vs Forward Current
VF - 1.0 to 100 uA

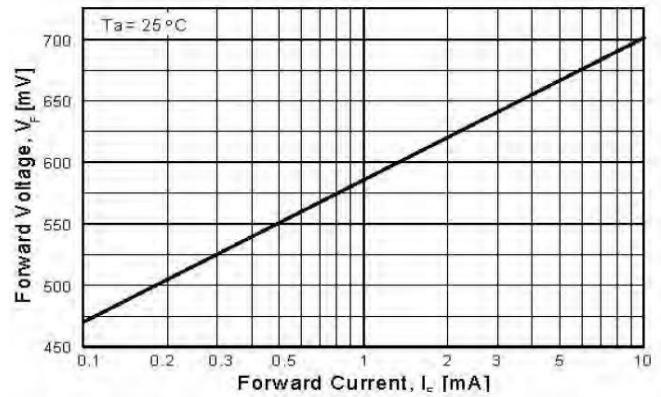


Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10 mA

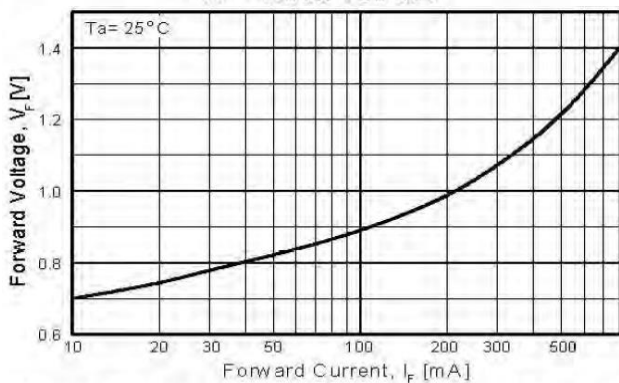


Figure 5. Forward Voltage vs Forward Current
VF - 10 - 800 mA

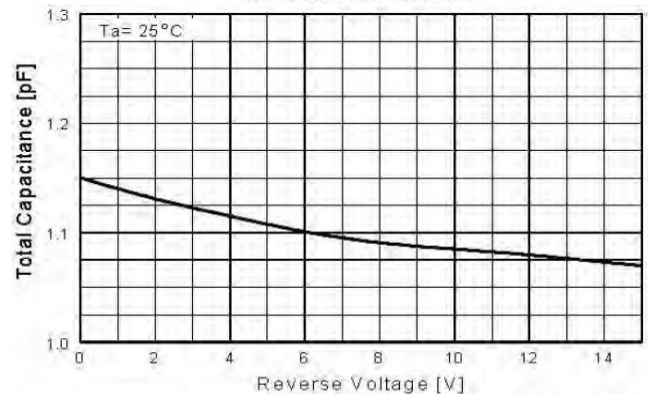


Figure 6. Total Capacitance vs Reverse Voltage

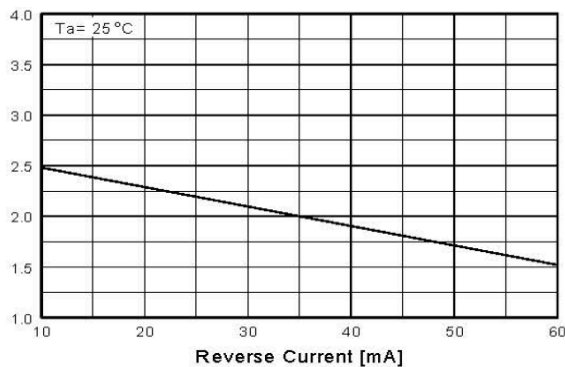


Figure 7. Reverse Recovery Time
vs Reverse Current
TRR - IR 10 mA vs 60 mA

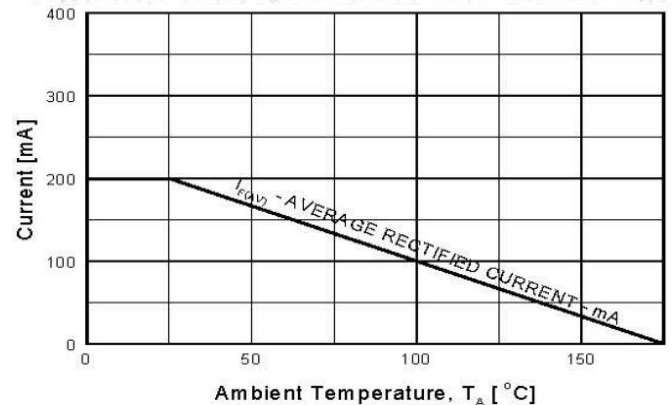


Figure 8. Average Rectified Current ($I_{F(AV)}$)
versus Ambient Temperature (T_A)

The curve above is for reference only.



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