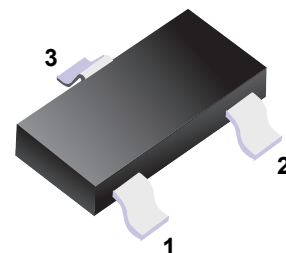
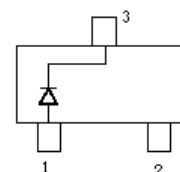


## Switching Diodes



■ Simplified outline(SOT-23)



■ Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

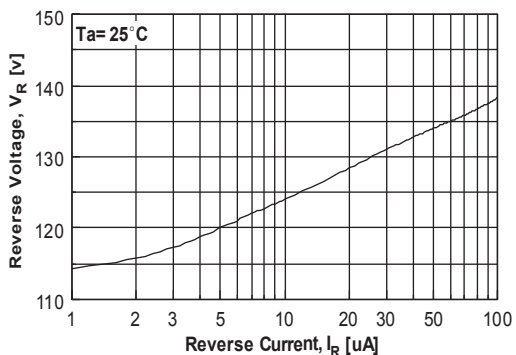
■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	$I_O$	200	mA
Forward Continuous Current	$I_{FM}$	300	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0 \mu\text{s}$ @ $t = 1.0\text{s}$	$I_{FSM}$	2.0	A
		1.0	
Power Dissipation	$P_d$	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T, T_{STG}$	-55 to +150	$^\circ\text{C}$

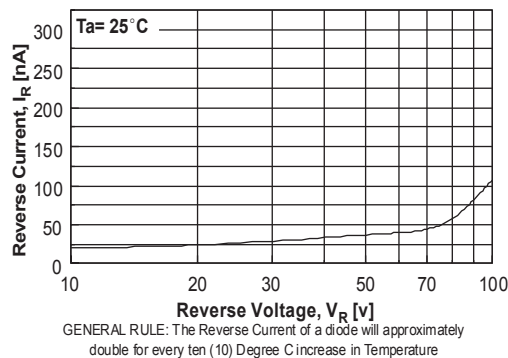
■ Electrical Characteristics  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100 \mu\text{A}$	75			V
Forward Voltage	$V_F$	$I_F = 1.0\text{mA}$			0.715	V
		$I_F = 10\text{mA}$			0.855	
		$I_F = 50\text{mA}$			1.0	
		$I_F = 150\text{mA}$			1.25	
Leakage Current	$I_R$	$V_R = 75\text{V}$			1.0	$\mu\text{A}$
		$V_R = 20\text{V}$			25	nA
Junction Capacitance	$C_j$	$V_R = 0, f = 1.0\text{MHz}$			2	pF
Reverse Recovery Time	$t_{rr}$	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			4	ns

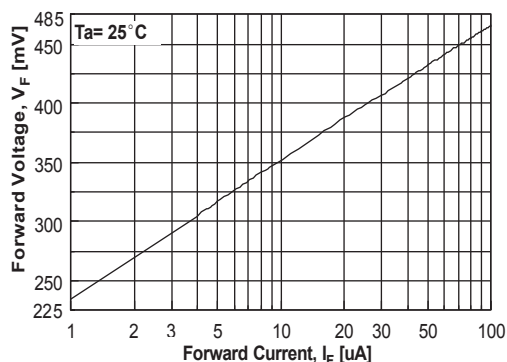
## ■ Typical Characteristics



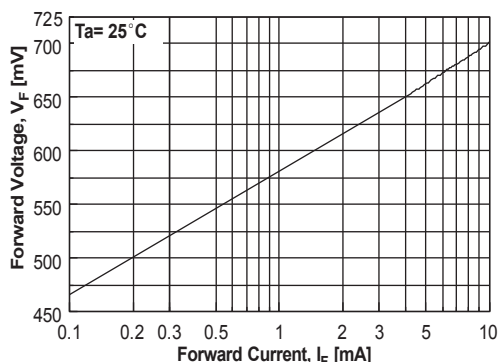
**Figure 1. Reverse Voltage vs Reverse Current**  
BV - 1.0 to 100 uA



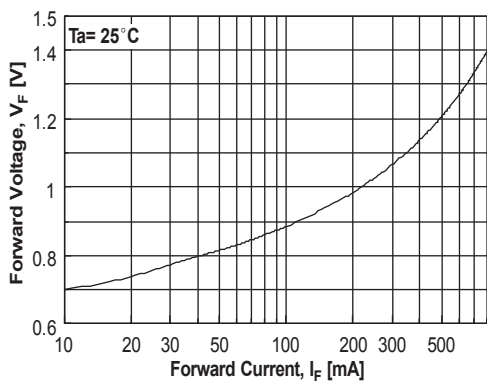
**Figure 2. Reverse Current vs Reverse Voltage**  
IR - 10 to 100 V



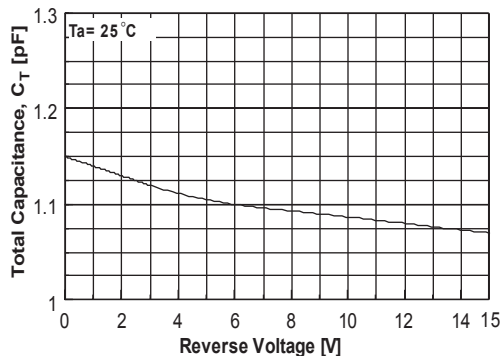
**Figure 3. Forward Voltage vs Forward Current**  
VF - 1.0 to 100 uA



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

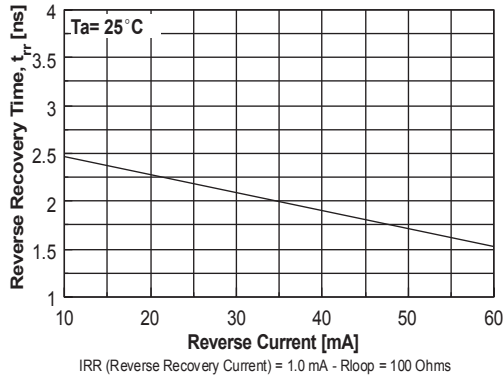


**Figure 5. Forward Voltage vs Forward Current**  
VF - 10 - 800 mA

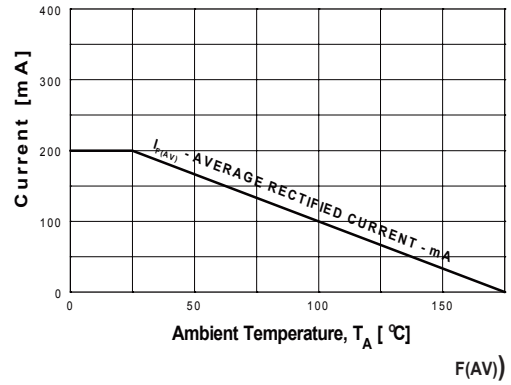


**Figure 6. Total Capacitance**

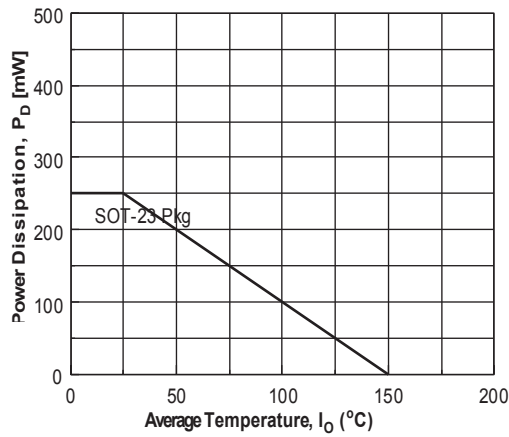
■ Typical Characteristics



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

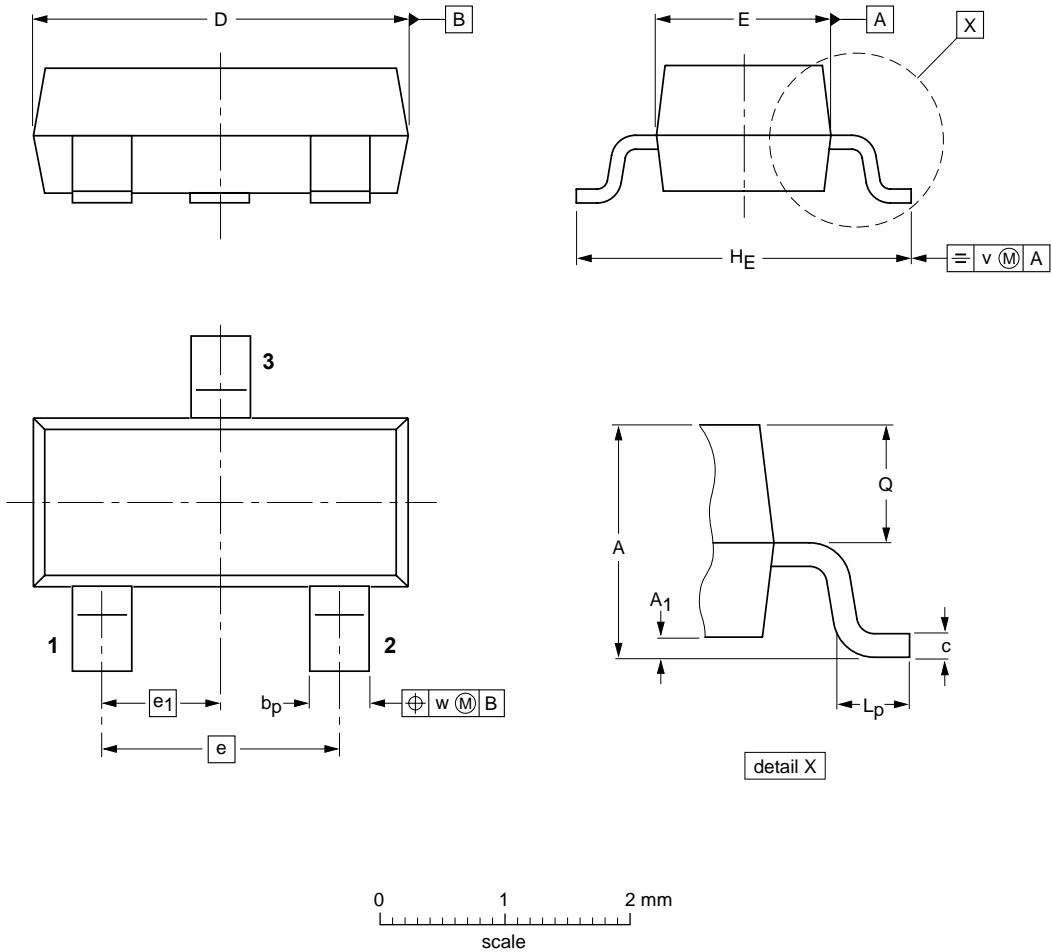


**Figure 8. Average Rectified Current ( $I_A$ ) versus Ambient Temperature ( $T$ )**



**Figure 9. Power Derating Curve**

■ SOT-23



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1