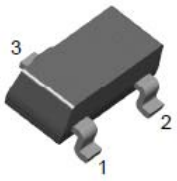
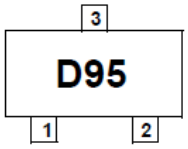
FAIRCHILD SEMICONDUCTOR®

March 2009

BAR43/A/C/S
Schottky Rectifiers



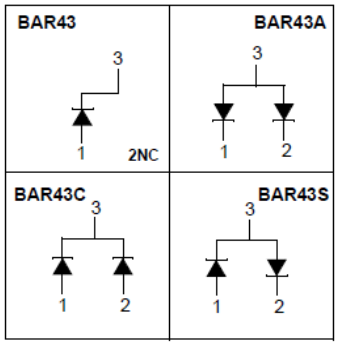
SOT-23



MARKING

BAR43	D95	BAR43A	DB1
BAR43C	DB2	BAR43S	DA5

Connection Diagram



Absolute Maximum Ratings* T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	30	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non Repetitive Peak Forward Current Pulse Width = 1.0 second	750	mA
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_{Jmax}	Operating Junction Temperature	150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may by impaired.

Thermal Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	290	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	430	°C/W

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V_R	Breakdown Voltage	I_R = 100µA		30	V
V_F	Forward Voltage	I_F = 2.0mA I_F = 15mA I_F = 100mA	260	330 450 0.8	mV mV V
I_R	Reverse Leakage	V_R = 25V V_R = 25V, T_a=100°C		0.5 100	µA
t_{rr}	Reverse Recovery Time	I_F = I_R = 100mA, I_{RR} = 1.0mA R_L = 100Ω		5.0	ns
	Minimum Detection Recovery Time I_F = I_R = 100mA, I_{RR} = 1.0mA, R_L = 100Ω			80%	

Typical Performance Characteristics

Figure 1. Forward Voltage vs Temperature

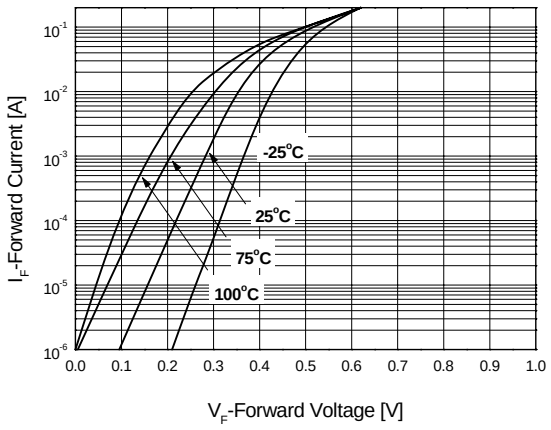


Figure 2. Reverse Leakage Current vs Temperature

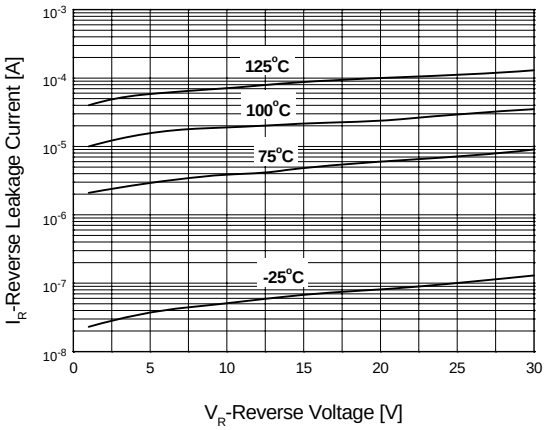
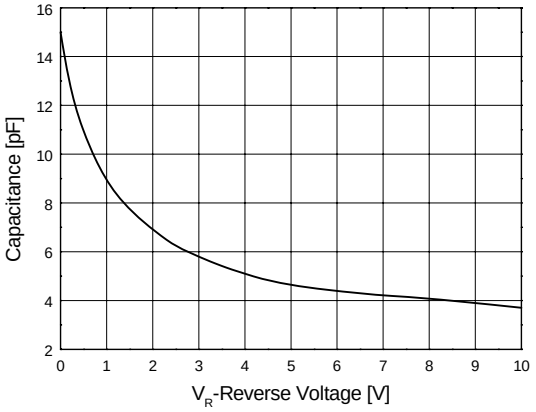


Figure 3. Capacitance vs Reverse Bias Voltage



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Rev. I40