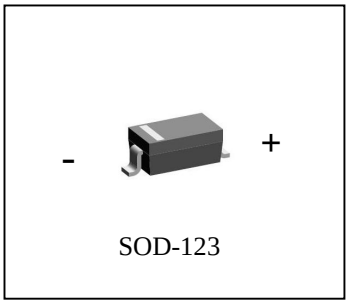
BAT42W



Features

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automatic Insertion

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAT42W / BAT43W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current (Note 1)	I_{FM}	200	mA
Repetitive Peak Forward Current (Note 1) @ t < 1.0s	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current @ t < 10ms	I_{FSM}	4.0	A
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	T_j , T_{STG}	-55 to +125	°C

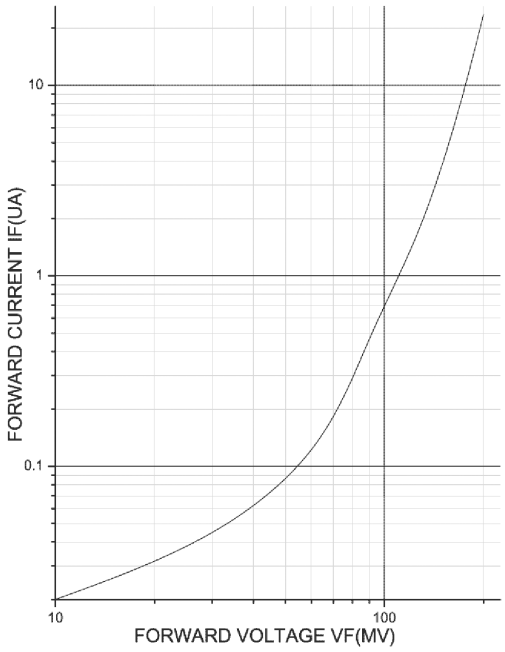
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
Forward Voltage Drop	All Types	V_{FM}	—	1.0	V	I_F = 200mA
	BAT42W		—	0.40		I_F = 10mA
	BAT42W		—	0.65		I_F = 50mA
	BAT43W		0.26	0.33		I_F = 2.0mA
	BAT43W		—	0.45		I_F = 15mA
Maximum Peak Reverse Current		I_{RM}	—	500 100	nA μA	V_R = 25V V_R = 25V, T_j = 100°C
Junction Capacitance		C_j	—	10	pF	V_R = 1.0, f = 1.0MHz
Reverse Recovery Time		t_{rr}	—	5.0	ns	I_F = I_R = 10mA, I_{rr} = 0.1 x I_R, R_L = 100Ω
Rectification Efficiency		ηv	80	—	%	R_L = 15Ω, C_L = 300pF, f = 45MHz, V_{RF} = 2.0V

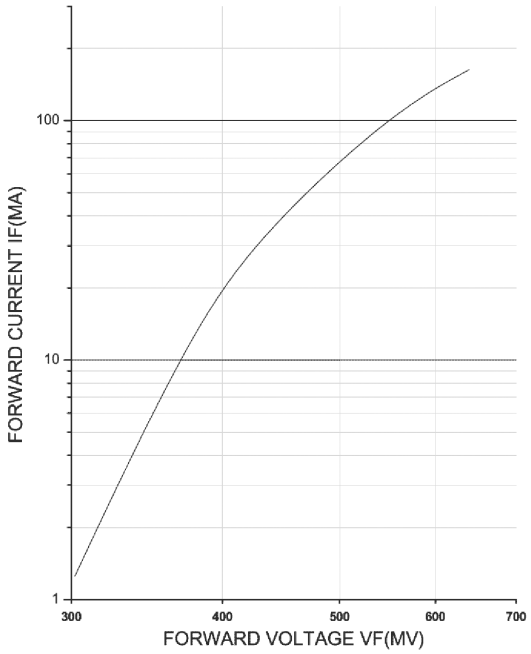
Typital Characteristics

BAT42W

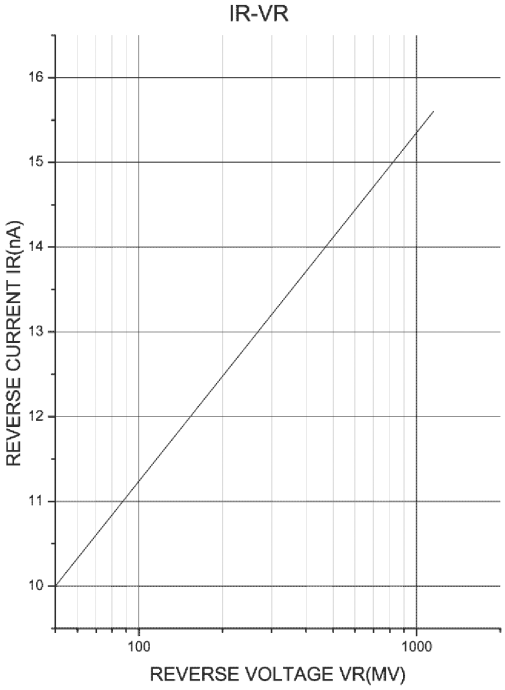
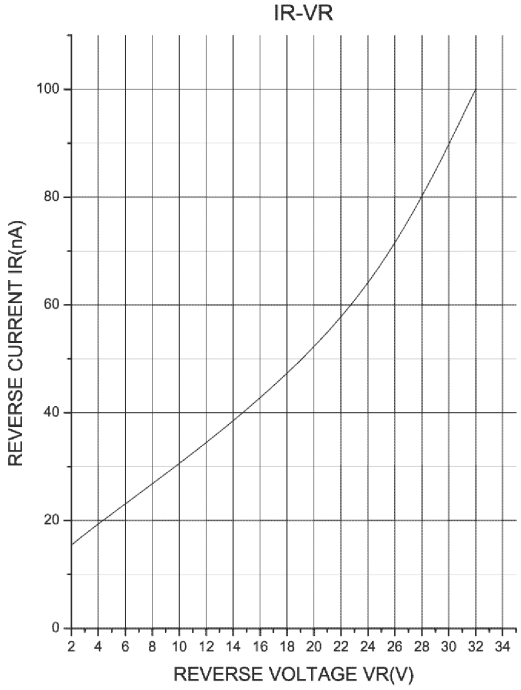
IF-VF



IF-VF



IR-VR



IR-VR