II. Schottky Rectifier

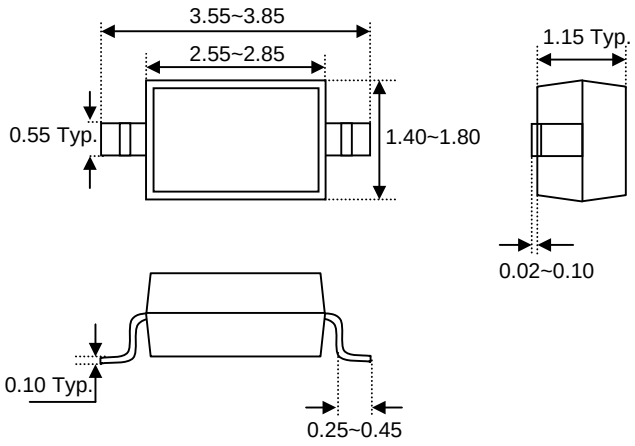
0.2A Surface Mount Schottky Rectifier
BAT42W / BAT43W (Package: SOD-123)

FEATURES

- Low forward voltage drop
- Guard ring construction for transient protection
- High conductance

MECHANICAL DATA

- Case : Molded plastic body
- Terminals : Plated leads solderable per MIL-STD-750, Method 2026
- Polarity : Polarity symbols marked on case
- Marking : BAT42W : S7
  BAT43W : S8



Case: SOD-123
Dimensions in millimetres (inches)

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage Working peak DC Reverse Voltage	V_{RM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward continuous Current	I_F	200	mA
Repetitive peak Forward Current	I_{FRM}	500	mA
Forward Surge Current	I_{FSM}	4.0	A
Power Dissipation	P_d	200	mW
Thermal resistance,junction to ambient air	$R_{\theta jA}$	625	℃/W
Junction temperature	T_j	125	℃
Storage temperature range	T_{stg}	-55 to +125	℃

Ratings of BAT42W / BAT43W

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=100μA	30			V
Forward voltage ALL types	V_F	I_F=200mA			1.0	V
BAT42W	V_F	I_F=10mA			0.4	V
BAT42W	V_F	I_F=50mA			0.65	V
BAT43W	V_F	I_F=2mA	0.26		0.33	V
BAT43W	V_F	I_F=15mA			0.45	V
Reverse current	I_R	V_R=25V			0.5	μA
Reverse recovery time	t_{rr}	I_F=I_R=10mA I_{rr}=0.1*I_R R_L=100Ω			5.0	ns
Capacitance between terminals	C_T	V_R=1V,f=1MHz			10	pF
Rectification efficiency	ηv	R_L=15Ω,C_L=300pF, f=45MHz	80			%