

## SCHOTTKY BARRIER DIODE

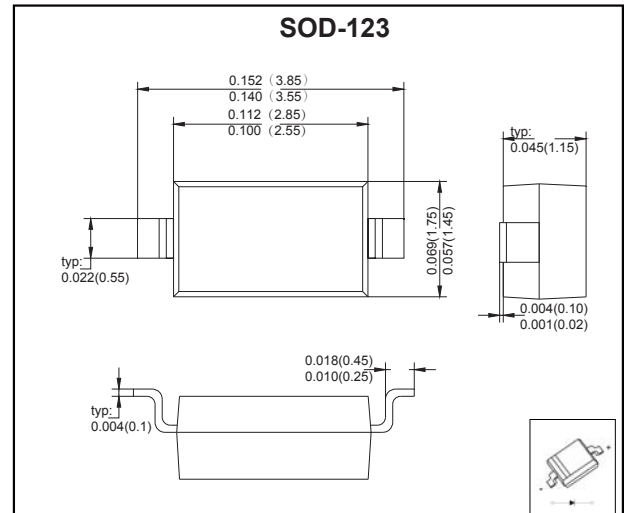
VOLTAGE RANGE: 30V PEAK PULSE POWER:500mW

### FEATURES

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

### MECHANICAL DATA

- Case: SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



## MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified

Parameter	Symbol	BAT42W/BAT43W	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	$I_{FM}$	200	mA
Repetitive Peak Forward Current @ $t < 1.0s$	$I_{FRM}$	500	mA
Non-repetitive Peak Forward Surge Current @ $t = 8.3ms$	$I_{FSM}$	4.0	A
Power Dissipation	$P_D$	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	$^{\circ}C/W$
Junction temperature	$T_J$	125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55~+150	$^{\circ}C$

## Electrical Specification ( $T_A = 25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	30			V	$I_R = 10\mu A$
Forward voltage	All Types			1.0	V	$I_F = 200mA$
	BAT42W			0.4	V	$I_F = 10mA$
	BAT42W			0.65	V	$I_F = 50mA$
	BAT43W	0.26		0.33	V	$I_F = 2mA$
	BAT43W			0.45	V	$I_F = 15mA$
Reverse current	$I_R$			0.5	$\mu A$	$V_R = 25V$
Capacitance between terminals	$C_T$			10	pF	$V_R = 1.0V, f = 1.0MHz$
Reverse recovery time	$t_{rr}$			5	ns	$I_F = I_R = 10mA$ $I_{rr} = 0.1I_R, R_L = 100\Omega$

### MARKING:

BAT42W	BAT43W
S7	S8

# RATINGS AND CHARACTERISTIC CURVES

