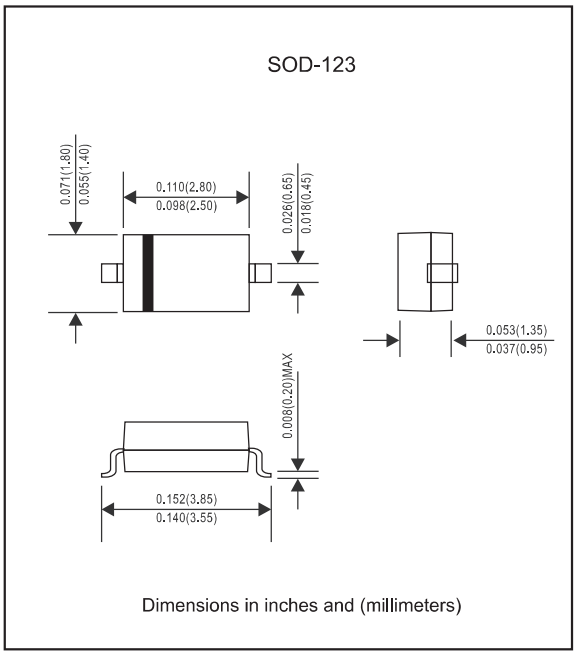
BAT48ZFILM

Small Signal Schottky Diode -40V

Features

- Low current rectification and high speed switching
- Extremely small surface mount type
- Low forward voltage drop
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet RoHS requirements
- Halogen-free

Package outline



Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

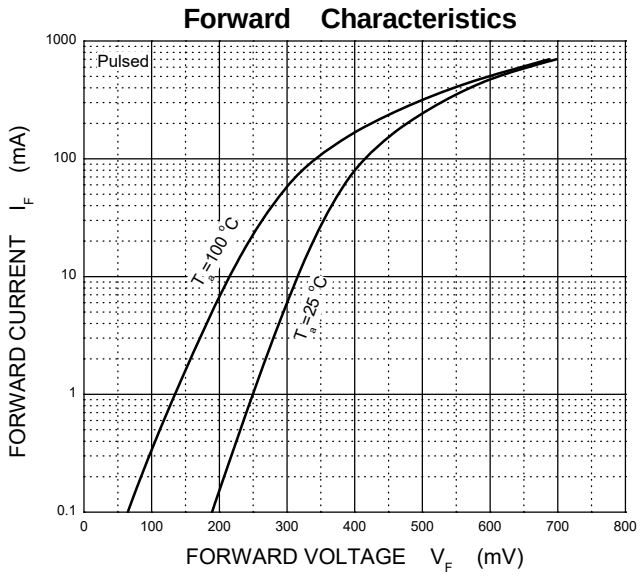
Maximum ratings (AT T_A=25°C unless otherwise noted)

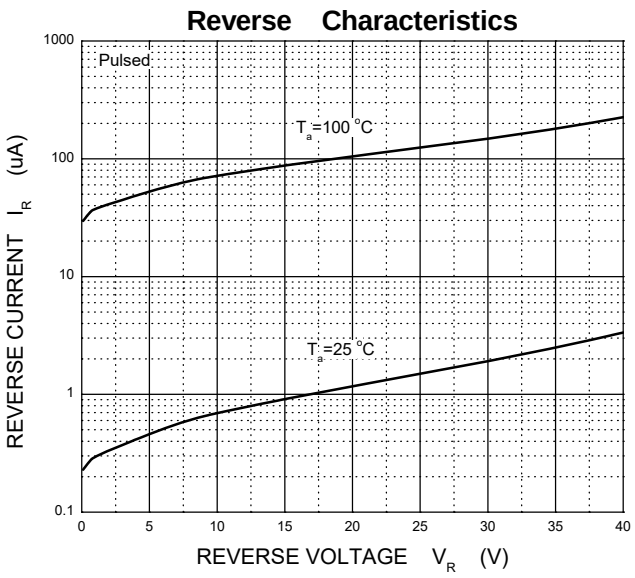
Parameter	Conditions	Symbol	BAT48ZFILM	Unit
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage		V_{RRM} V_{RWM} V_R	40	V
RMS reverse voltaget		$V_{R(RMS)}$	28	V
Average rectified output current		$I_{F(AV)}$	350	mA
Non-repetitive peak forward surge current	@ t=8.3mS	I_{FSM}	2	A
Total device dissipation		P_D	400	mW
Thermal resistance	Junction to ambient	$R_{\theta JA}$	250	°C/W
Operating junction temperature range		T_J	-55 to +125	°C
Storage temperature range		T_{STG}	-55 to +150	°C

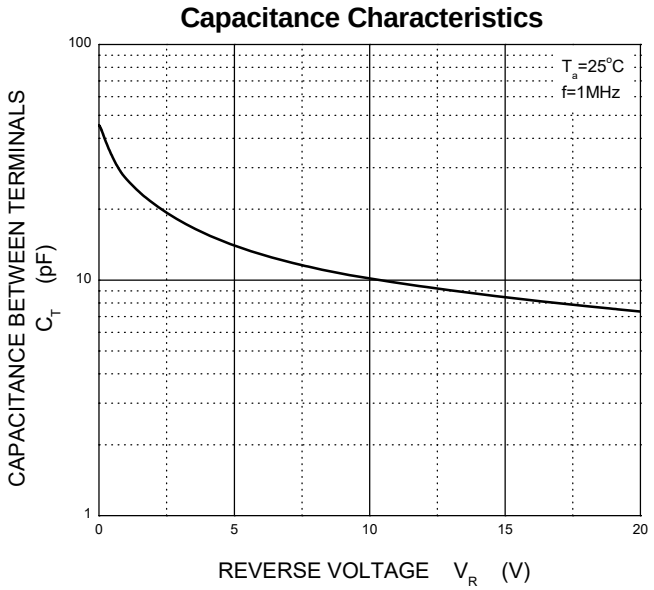
Electrical characteristics (AT T_A=25°C unless otherwise noted)

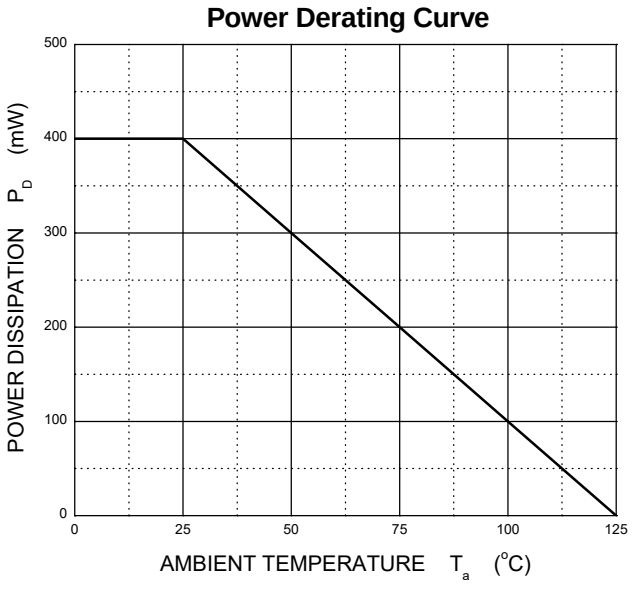
Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Reverse breakdown voltage	I_R=100μA	$V_{(BR)R}$	40			V
Forward voltage	I_F=20mA I_F=200mA	VF			0.37 0.60	V
Reverse leakage current	V_R=30V	I_R			5.0	μA
Typical junction capacitance	V_R=0V, f=1.0MHz	C_J		50		pF
Reverse recover time	I_F=I_R=200mA, I_{rr}=0.1 X I_R, R_L=100Ω	trr		10		nS

Rating and characteristic curves









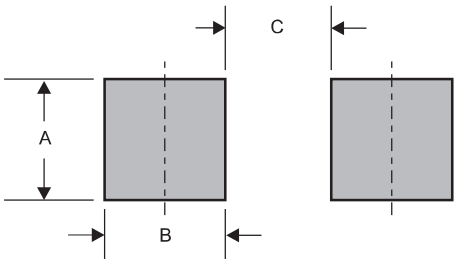
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
BAT48ZFILM	S4

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.048 (1.22)	0.036 (0.91)	0.093 (2.36)