

Features

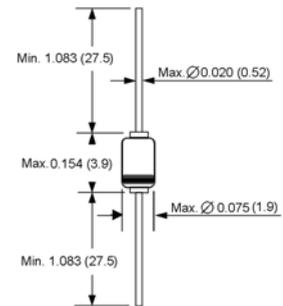
- ◆ Integrated protection ring against static discharge
- ◆ Low capacitance
- ◆ Low leakage current
- ◆ Low forward voltage drop
- ◆ Very low switching time

Applications

General purpose and switching Schottky barrier diode
 HF-Detector
 Protection circuit
 Diode for low currents with a low supply voltage
 Small battery charger
 Power supplies
 DC / DC converter for notebooks



DO-204AH (DO-35 Glass)



Dimensions in inches and (millimeters)

Mechanical Data

- ◆ Case: DO-35 Glass Case
- ◆ Weight: max. 130 mg
- ◆ Cathode Band Color: Black

Absolute Maximum Ratings

($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test Condition	Part	Symbol	Value	Unit
Reverse voltage		BAT81S	V_R	40	V
		BAT82S	V_R	50	V
		BAT83S	V_R	60	V
Peak forward surge current	$t_p \leq 10 \text{ ms}$		I_{FSM}	500	mA
Repetitive peak forward current	$t_p \leq 1 \text{ s}$		I_{FRM}	150	mA
Forward current			I_F	30	mA

Thermal Characteristics

($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test Condition	Symbol	Value	Unit
Junction ambient	$l=4 \text{ mm}, T_i=\text{constant}$	R_{thJA}	320	K/W
Junction temperature		T_j	125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-65 to +150	$^{\circ}\text{C}$

Electrical Characteristics

($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=0.1 \text{ mA}$	V_F			330	mV
	$I_F=1 \text{ mA}$				410	mV
	$I_F=15 \text{ mA}$				1	V
Reverse current	$V_R=V_{RMax}$	I_R			200	nA
Diode capacitance	$V_R=1 \text{ V}, f=1 \text{ MHz}$	C_D			1.6	pF

■ Typical characteristics

($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

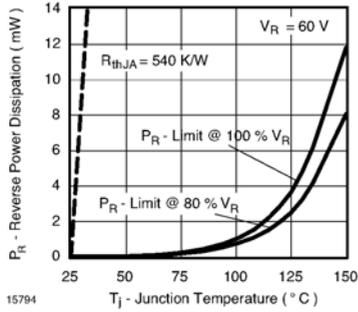


Fig. 1 Max. Reverse Power Dissipation vs. Junction Temperature

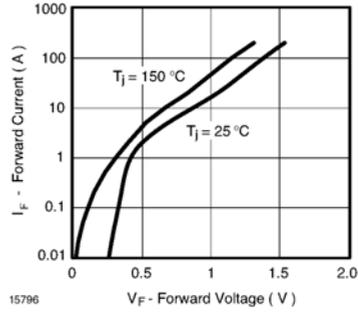


Fig. 3 Forward Current vs. Forward Voltage

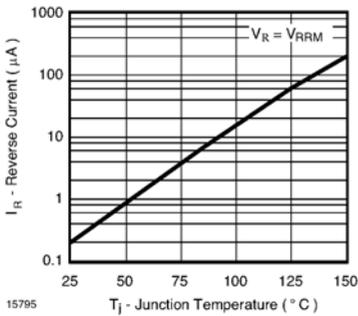


Fig. 2 Reverse Current vs. Junction Temperature

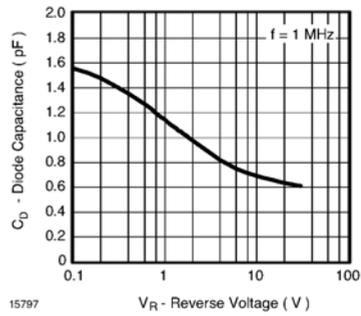


Fig. 4 Diode Capacitance vs. Reverse Voltage