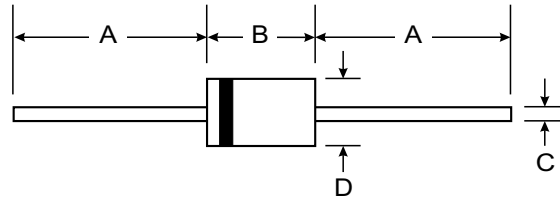


Features

- Integrated protection ring against static discharge
- Low capacitance
- Low leakage current
- Low forward voltage drop
- Very low switching time
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



DO-35		
Dim	Min	Max
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

Mechanical Data

- **Case:** DO35 Glass case
- **Weight:** approx. 125 mg
- **Cathode Band Color:** black
- **Packaging Codes/Options:**
TR/10 k per 13" reel (52 mm tape), 50 k/box
TAP/10 k per Ammopack (52 mm tape), 50 k/box

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ 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	
Forward continuous current			I_F	30	mA	
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	
Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 0.1 \text{ mA}$	V_F			330	mV
	$I_F = 1 \text{ mA}$	V_F			410	mV
	$I_F = 15 \text{ mA}$	V_F			1000	mV
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

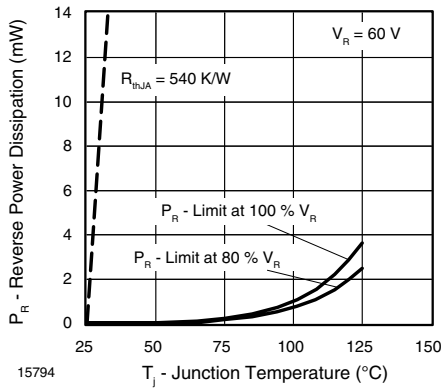


Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

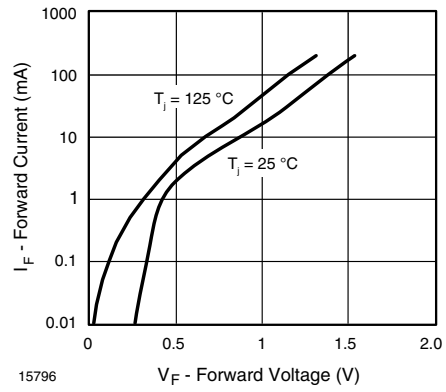


Figure 3. Forward Current vs. Forward Voltage

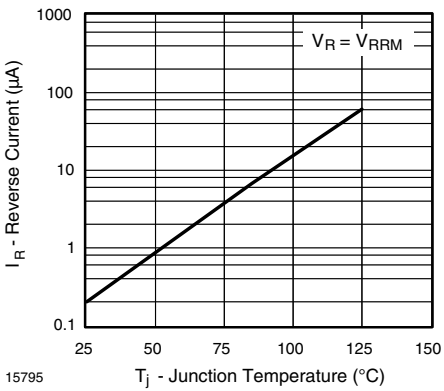


Figure 2. Reverse Current vs. Junction Temperature

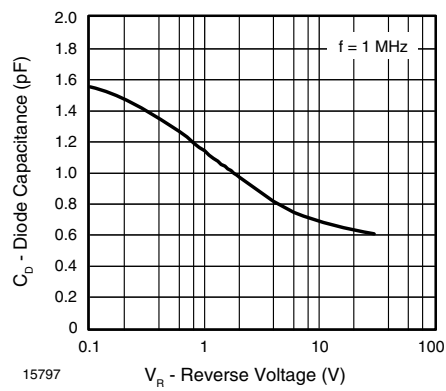


Figure 4. Diode Capacitance vs. Reverse Voltage