

# Schottky Barrier Diode

## Features

1. High reliability
2. Very low forward voltage
3. Integrated protection ring against static discharge

## Applications

Applications where a very low forward voltage is required

## Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

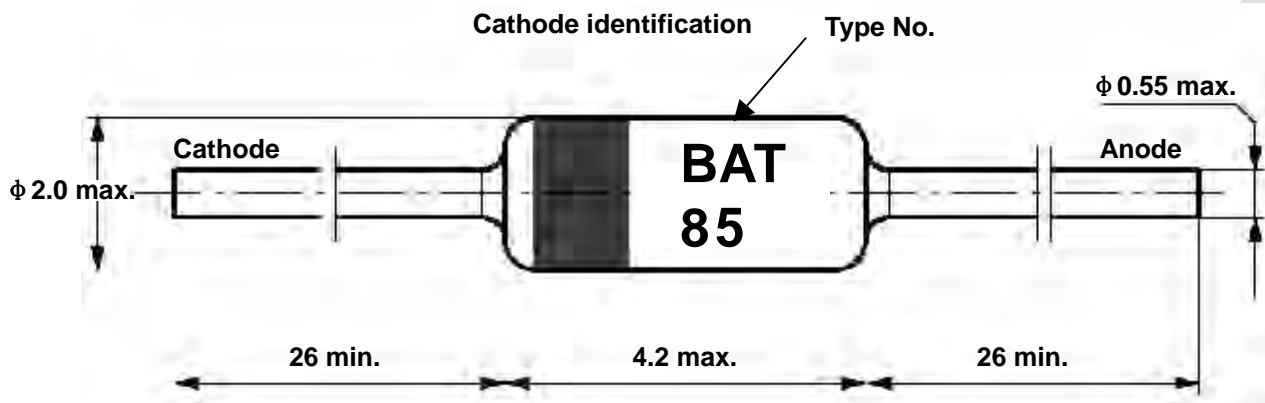
Parameter	Test Conditions	Symbol	Value	Unit
Continuous reverse voltage		$V_R$	30	V
Forward continuous current	$T_{amb}=25^{\circ}\text{C}$	$I_F$	200	mA
Peak forward current	$T_{amb}=25^{\circ}\text{C}$	$I_{FM}$	300	mA
Surge forward current	$t_p \leq 1 \text{ s}, T_{amb}=25^{\circ}\text{C}$	$I_{FSM}$	600	mA
Power dissipation	$T_{amb}=65^{\circ}\text{C}$	$P_{tot}$	200	mW
Maximum junction temperature		$T_j$	125	$^{\circ}\text{C}$
Ambient operating temperature range		$T_A$	-65~+125	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-65~+150	$^{\circ}\text{C}$

## Maximum Thermal Resistance

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mm×50mm×1.6mm	$R_{thJA}$	250	K/W

### Dimensions in mm



Standard Glass Case  
JEDEC DO 35

**Characteristics** ( $T_j=25^{\circ}\text{C}$  unless otherwise specified)

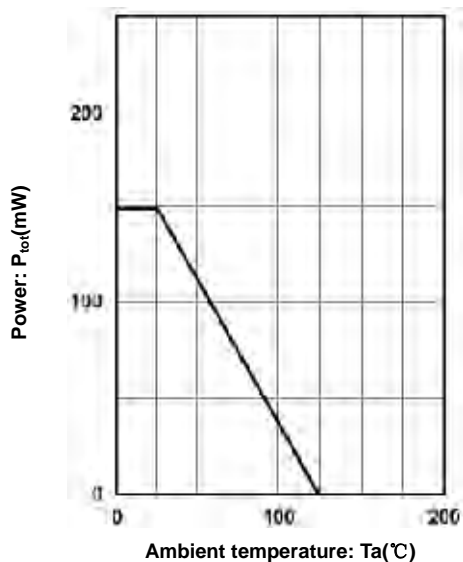


Figure 1. Admissible power dissipation vs. ambient temperature

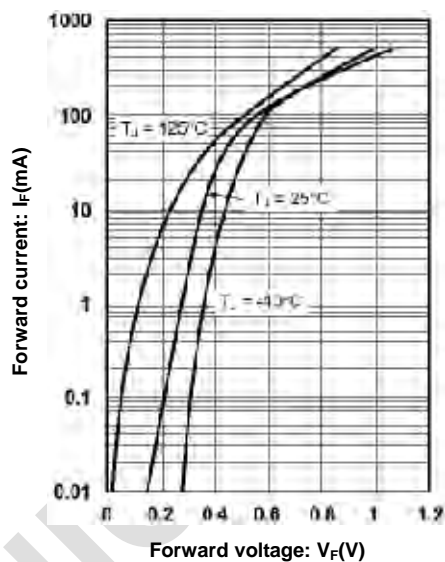


Figure 2. Typical instantaneous forward characteristics

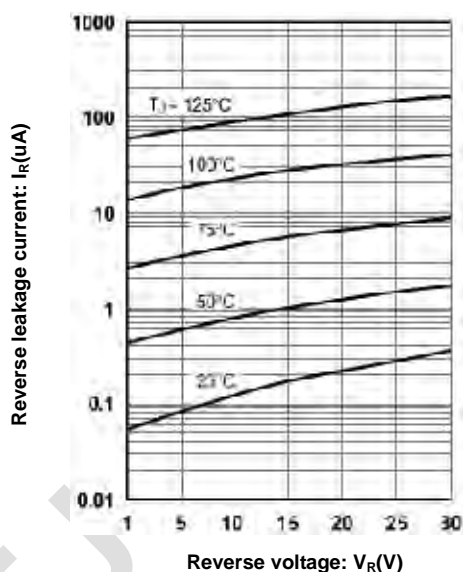


Figure 3. Typical reverse characteristics

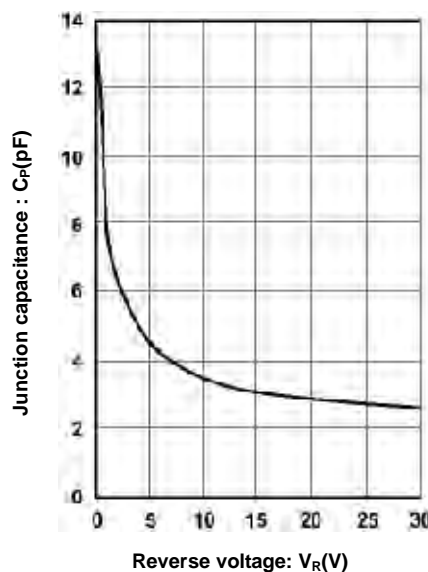


Figure 4. Typical junction capacitance

## Electrical Characteristics

$T_j=25^{\circ}\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=10\ \mu\text{A}$ (pulsed)	30	-	-	V
Leakage current	$I_R$	$V_R=25\text{V}$	-	-	2	$\mu\text{A}$
Forward voltage Pulse test $t_p < 300\ \mu\text{s}$ , $\delta < 2\%$	$V_F$	$I_F=0.1\text{mA}$	-	-	0.24	V
		$I_F=1\text{mA}$	-	-	0.32	V
		$I_F=10\text{mA}$	-	-	0.4	V
		$I_F=30\text{mA}$	-	0.5	-	V
		$I_F=100\text{mA}$	-	-	0.8	V
Capacitance	$C_{\text{tot}}$	$V_R=1\text{V}$ , $f=1\text{MHz}$	-	-	10	pF
Reverse recovery time	$t_{rr}$	$I_F=10\text{mA}$ to $I_R=10\text{mA}$ to $I_R=0.1\text{mA}$ $I_R$	-	-	5	ns