

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

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

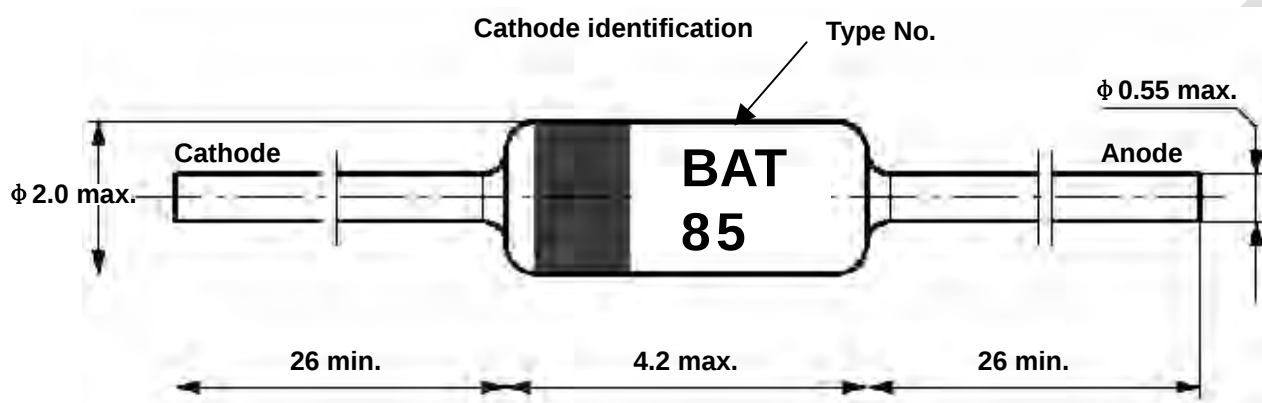
Parameter	Test Conditions	Symbol	Value	Unit
Continuous reverse voltage		V_R	30	V
Forward continuous current	$T_{amb}=25^{\circ}\text{C}$	I_F	200	mA
Peak forward current	$T_{amb}=25^{\circ}\text{C}$	I_{FM}	300	mA
Surge forward current	$t_p \leq 1\text{ s}, T_{amb}=25^{\circ}\text{C}$	I_{FSM}	600	mA
Power 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)

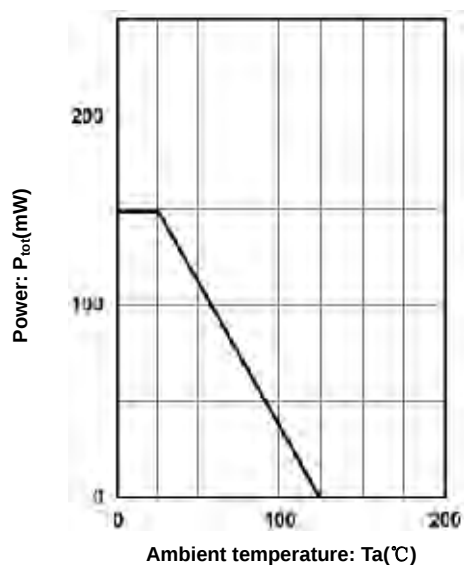


Figure 1. Admissible power dissipation vs. ambient temperature

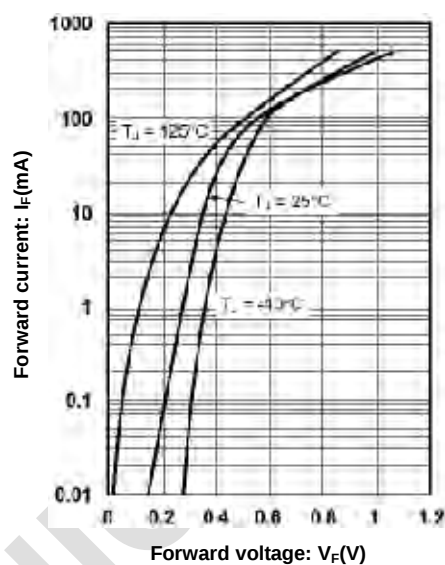


Figure 2. Typical instantaneous forward characteristics

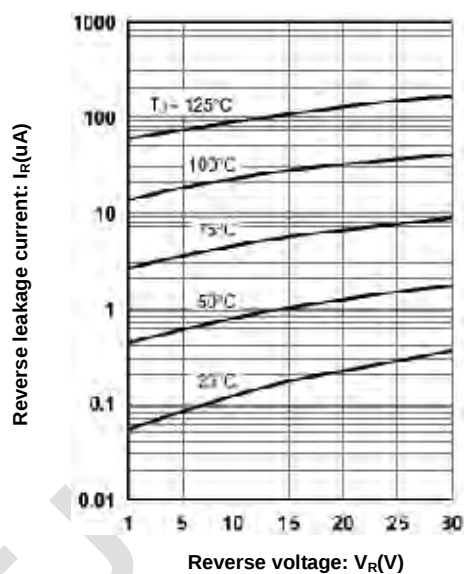


Figure 3. Typical reverse characteristics

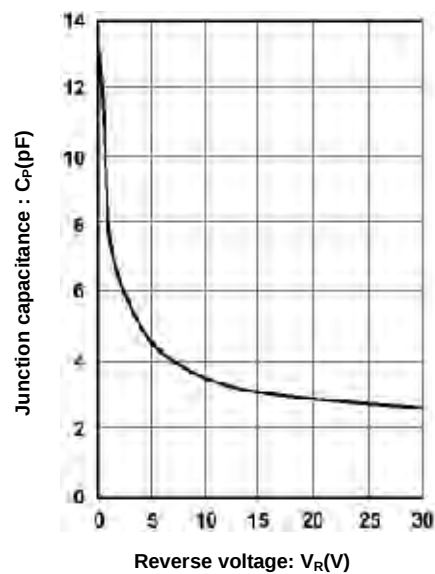


Figure 4. Typical junction capacitance

Electrical Characteristics

T_j=25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V _{(BR)R}	I _R =10 μ A (pulsed)	30	-	-	V
Leakage current	I _R	V _R =25V	-	-	2	μ A
Forward voltage Pulse test tp<300 μ s, δ <2%	V _F	I _F =0.1mA	-	-	0.24	V
		I _F =1mA	-	-	0.32	V
		I _F =10mA	-	-	0.4	V
		I _F =30mA	-	0.5	-	V
		I _F =100mA	-	-	0.8	V
Capacitance	C _{tot}	V _R =1V, f=1MHz	-	-	10	pF
Reverse recovery time	t _{rr}	I _F =10mA to I _R =10mA to I _R =0.1mA I _R	-	-	5	ns