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℃

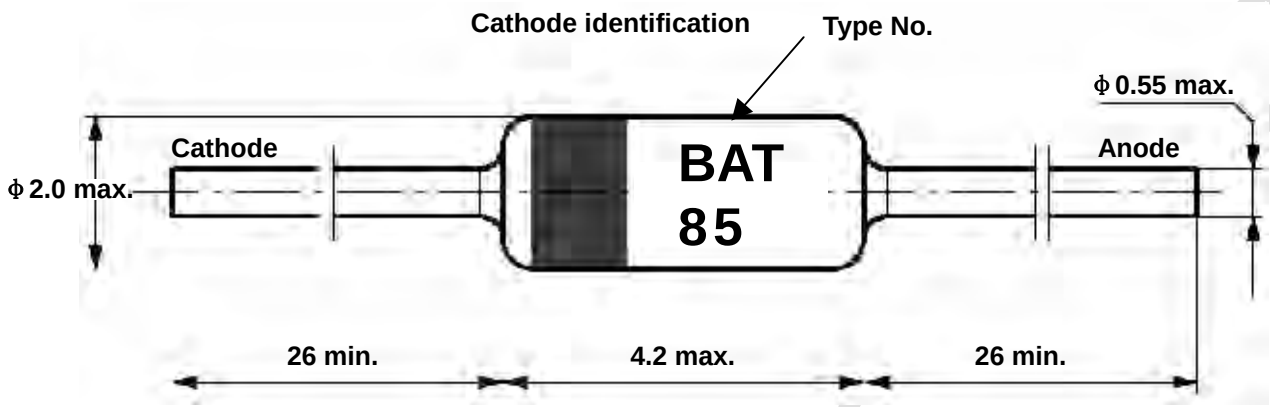
Parameter	Test Conditions	Symbol	Value	Unit
Continuous reverse voltage		V_R	30	V
Forward continuous current	T_{amb}=25℃	I_F	200	mA
Peak forward current	T_{amb}=25℃	I_{FM}	300	mA
Surge forward current	t_p≦1 s, T_{amb}=25℃	I_{FSM}	600	mA
Power dissipation	T_{amb}=65℃	P_{tot}	200	mW
Maximum junction temperature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

Maximum Thermal Resistance

T_j=25℃

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℃ unless otherwise specified)

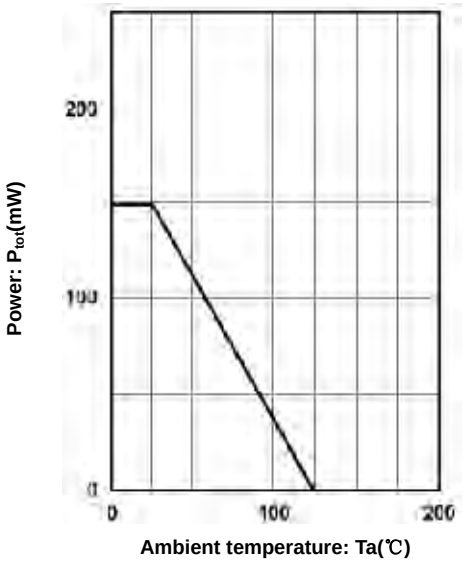


Figure 1. Admissible power dissipation vs. ambient temperature

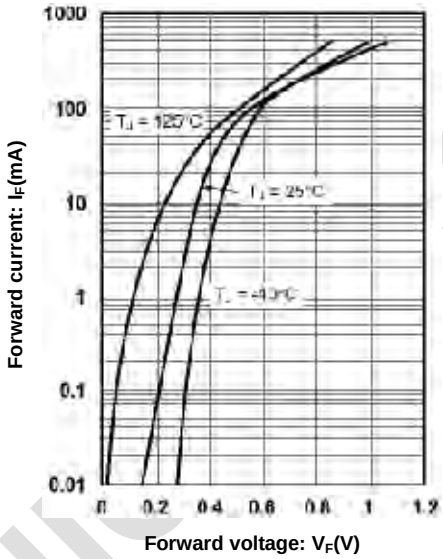


Figure 2. Typical instantaneous forward characteristics

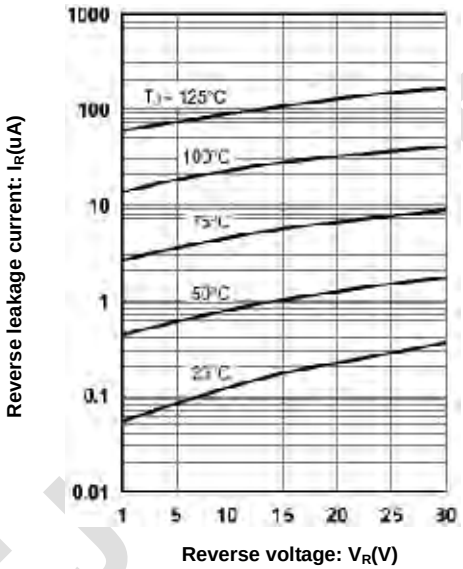


Figure 3. Typical reverse characteristics

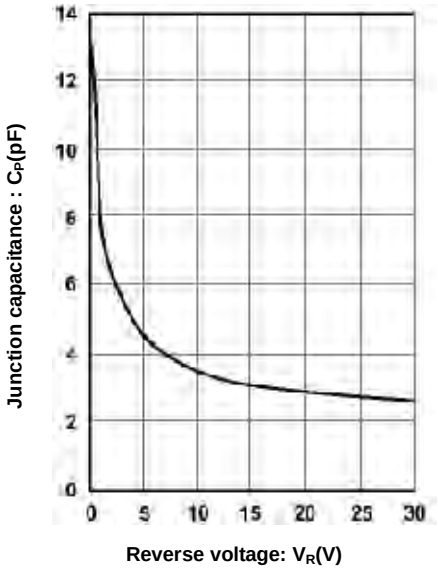


Figure 4. Typical junction capacitance

Electrical Characteristics

T_j=25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)R}$	I_R=10μA (pulsed)	30	-	-	V
Leakage current	I_R	V_R=25V	-	-	2	μA
Forward voltage Pulse test tp<300μs, 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