Schottky Barrier Diode

Features

1. High reliability
2. Very low forward voltage
3. Small surface mounting type

Applications

Applications where a very low forward voltage is required

Absolute Maximum Ratings

T_j=25℃

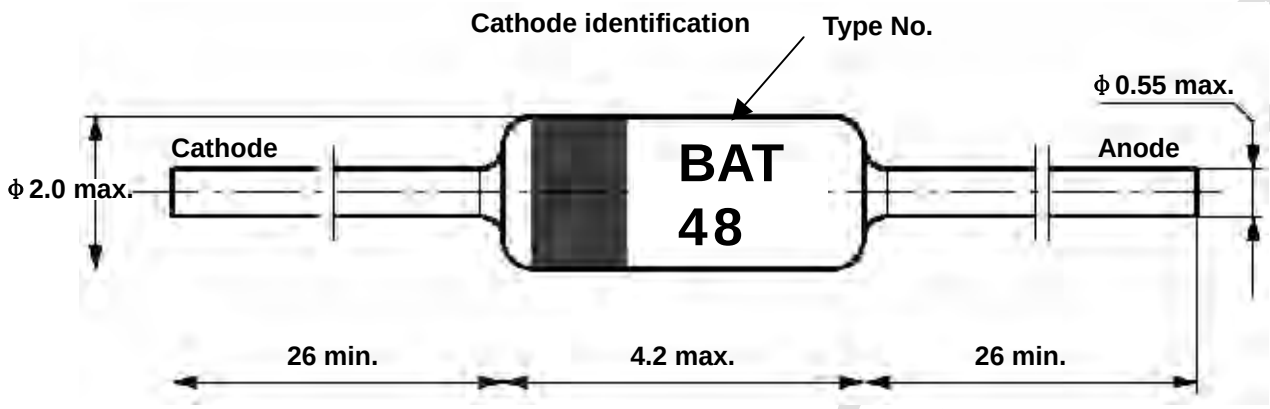
Parameter	Test Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	40	V
Forward continuous current	T_{amb}=25℃	I_F	350	mA
Repetitive peak forward current	T_{amb}=25℃, t_p≦1 s	I_{FRM}	1	A
Surge forward current	t_p≦10ms, T_{amb}=25℃	I_{FSM}	7.5	A
Power dissipation	T_{amb}=65℃	P_{tot}	330	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}	300	℃/W

Dimensions in mm



Standard Glass Case
JEDEC DO 35

Characteristics (T_j=25℃ unless otherwise specified)

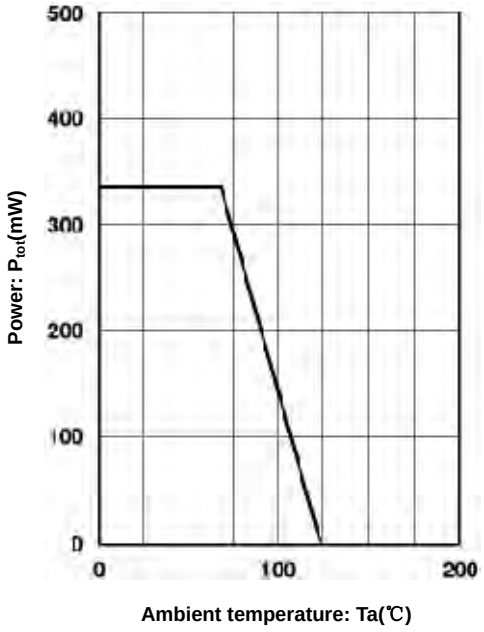


Figure 1. Admissible power dissipation vs. ambient temperature

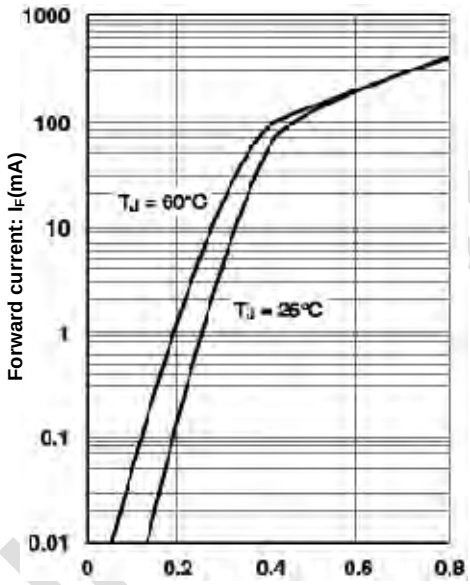


Figure 2. Forward characteristics

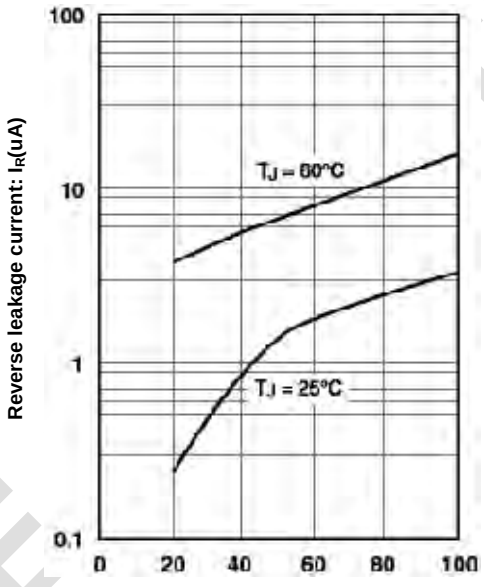


Figure 3. Typical reverse characteristics

Electrical Characteristics

T_j=25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)R}$	I_R=10μA (pulsed)	40	-	-	V
Leakage Current Pulse test tp<300μs, δ<2%	I_R	V_R=10V	-	-	2	μA
		V_R=10V, T_j=60℃	-	-	15	μA
		V_R=20V	-	-	5	μA
		V_R=20V, T_j=60℃	-	-	25	μA
		V_R=40V	-	-	25	μA
		V_R=40V, T_j=60℃	-	-	50	μA
Forward voltage Pulse test tp<300μs, δ<2%	V_F	I_F=0.1mA	-	-	0.25	V
		I_F=1mA	-	-	0.30	V
		I_F=10mA	-	-	0.40	V
		I_F=50mA	-	-	0.50	V
		I_F=200mA	-	-	0.75	V
		I_F=500mA	-	-	0.90	V
Capacitance	C_{tot}	V_R=1V, f=1MHz	-	12	-	pF