Schottky Barrier Diode

Features

1. High reliability
2. Low reverse current and low forward voltage

Applications

Low current rectification and high speed switching

Construction

Silicon epitaxial planar

Absolute Maximum Ratings

T_j=25℃

Parameter	Test Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	30	V
Forward continuous current	T_a=25℃	I_F	200	mA
Repetitive peak forward surge current	t_p<1 s, δ<0.5, T_a=25℃	I_{FRM}	500	mA
Surge forward current	t_p<10ms, T_a=25℃	I_{FSM}	4	A
Power dissipation	T_a=65℃	P_{tot}	200	mW
Junction temperature		T_j	125	℃
Storage temperature range		T_S	-65~+150	℃

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

Electrical Characteristics

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage			$V_{(BR)R}$	30			V
Forward voltage	I_F=10mA	BAT42	V_F			0.4	V
	I_F=200mA	BAT42	V_F			1.0	V
	I_F=2mA	BAT43	V_F	0.26		0.33	V
	I_F=15mA	BAT43	V_F			0.45	V
	I_F=50mA	BAT43	V_F			0.65	V
	I_F=200mA	BAT43	V_F			1.0	V
Reverse current Pulse test t_p<300μs, δ<0.5	V_R=25V V_R=25V, T_j=100℃		I_R			0.5 100	μA
Capacitance	V_R=1V, f=1MHz		C_{tot}		7.0		pF
Reverse recovery time	I_F=10mA, I_R=10mA I_{rr}=1mA, R_L=100Ω		t_{rr}			5.0	ns

Characteristics (T_j=25℃ unless otherwise specified)

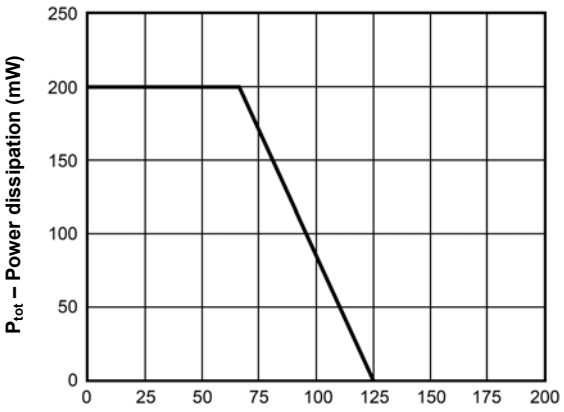


Figure 1. Admissible power dissipation vs. Ambient temperature

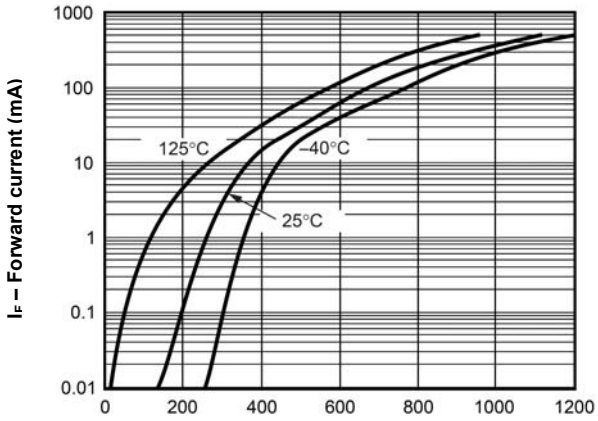


Figure 2. Typical reverse characteristics

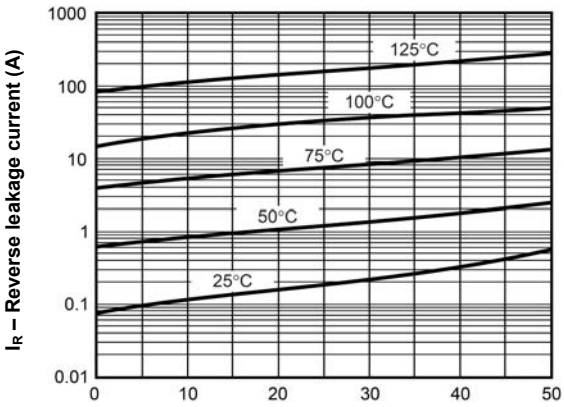


Figure 3. Typical reverse characteristics

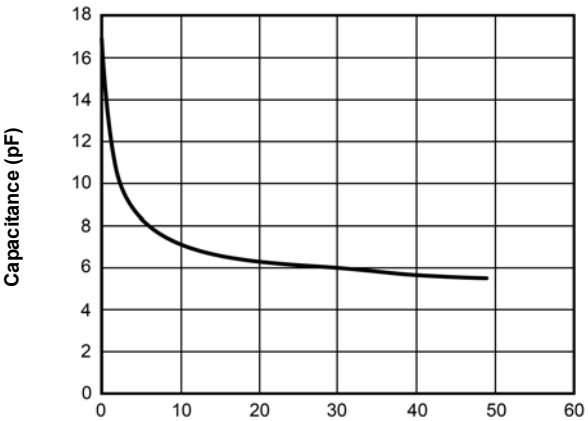
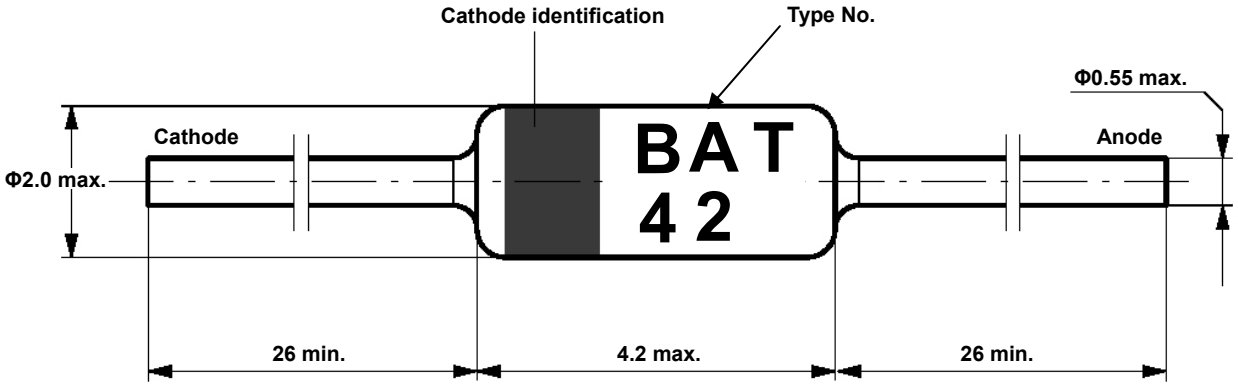
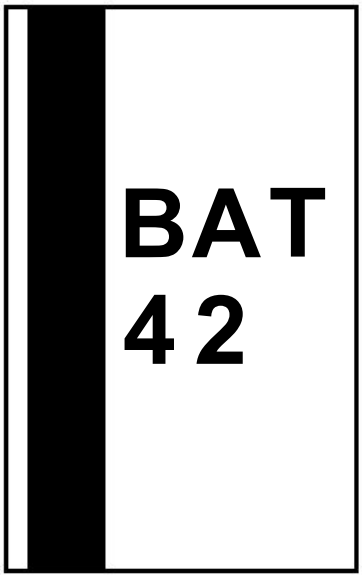


Figure 4. Typical capacitance vs. reverse applied voltage

Dimensions in mm



Standard Glass Case
JEDEC DO-35

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