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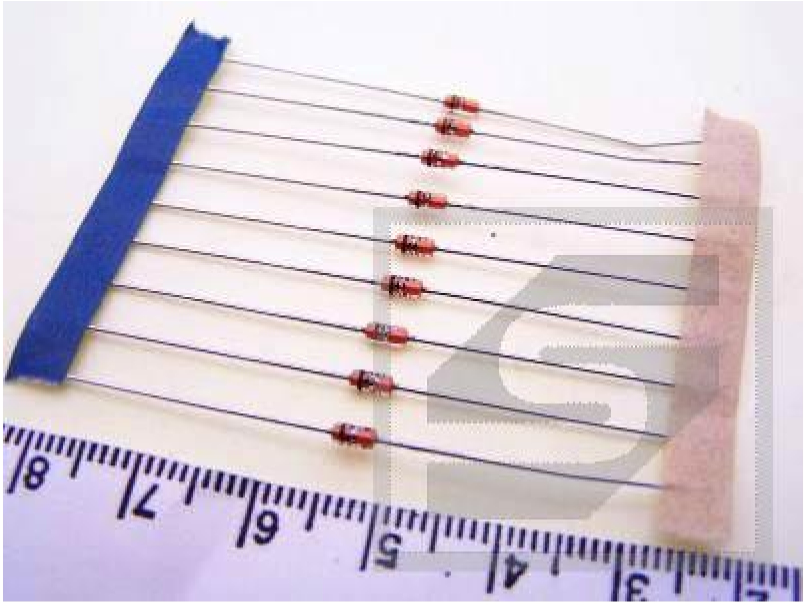
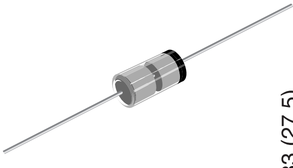
Dioda Schottky BAT42 30V;200mA;5ns Vf=0.65V DO35 RoHS

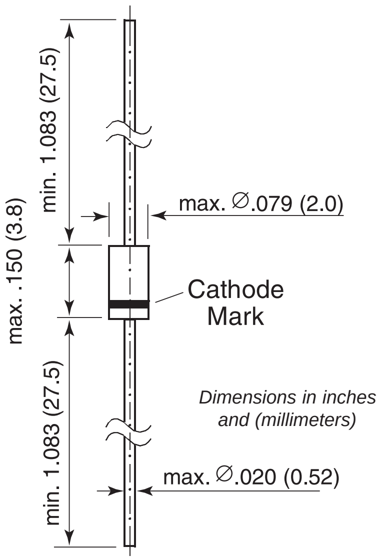


Dane techniczne:
Nazwa: BAT42
Typ diody: prostownicza Schottky
Napięcie wsteczne maksymalne: 30V
Napięcie przewodzenia maksymalne: 0.65V
Prąd przewodzenia: 0.2A
Prąd przewodzenia maksymalny: 0.5A
Obudowa: DO35
Montaż: przewlekany(THT)

Schottky Diodes



DO-204AH (DO-35 Glass)



Features

- For general purpose applications
- These diodes feature very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electro-static discharges
- These diodes are also available in the SOD-123 case with the type designations BAT42W to BAT43W and in designations LL42 to LL43.

Mechanical Data

Case: DO-35 Glass Case

Weight: approx. 0.13g

Packaging Codes/Options:

D7/10K per 13" reel (52mm tape), 20K/box

D8/10K per Ammo tape (52mm tape), 20K/box

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Continuous Current at T_{amb} = 25°C	I_F	200(1)	mA
Repetitive Peak Forward Current at t_p < 1s, δ < 0.5, T_{amb} = 25°C	I_{FRM}	500(1)	mA
Surge Forward Current at t_p < 10ms, T_{amb} = 25°C	I_{FSM}	4(1)	A
Power Dissipation(1) at T_{amb} = 65°C	P_{tot}	200(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300(1)	°C/W
Junction Temperature	T_j	125	°C
Ambient Operating Temperature Range	T_{amb}	–65 to +125	°C
Storage Temperature Range	T_S	–65 to +150	°C

Electrical Characteristics

(T_J = 25°C unless otherwise noted)

Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage		$V_{(BR)R}$	I_R = 100µA (pulsed)	30	—	—	V
Leakage Current Pulse Test t_p < 300µs, δ < 2%		I_R	V_R = 25V V_R = 25V, Tj = 100°C	— —	— —	0.5 100	µA
Forward Voltage Pulse Test t_p < 300µs, δ < 2%	BAT42, 43 BAT42 BAT43 BAT43 BAT43	V_F	I_F = 200mA I_F = 10mA I_F = 50mA I_F = 2mA I_F = 15mA	— — — 0.26 —	— — — — —	1 0.4 0.65 0.33 0.45	V
Capacitance		C_{tot}	V_R = 1V, f = 1MHz	—	7	—	pF
Reverse Recovery Time		t_{rr}	I_F = 10mA, I_R = 10mA I_{rr} = 1mA, R_L = 100Ω	—	—	5	ns
Detection Efficiency		η_ν	R_L = 15KΩ, C_L = 300pF f = 45MHz, V_{RF} = 2V	80	—	—	%

Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 – Admissible Power Dissipation vs. Ambient Temperature

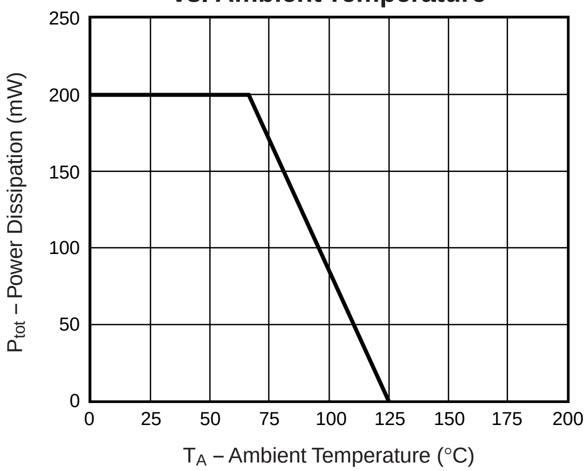


Fig. 2 – Typical Reverse Characteristics

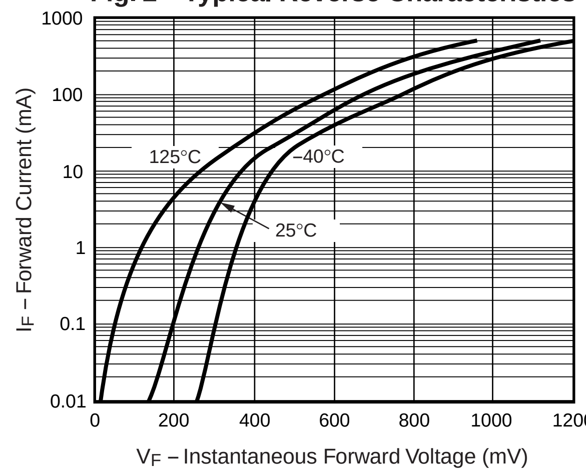


Fig. 3 – Typical Reverse Characteristics

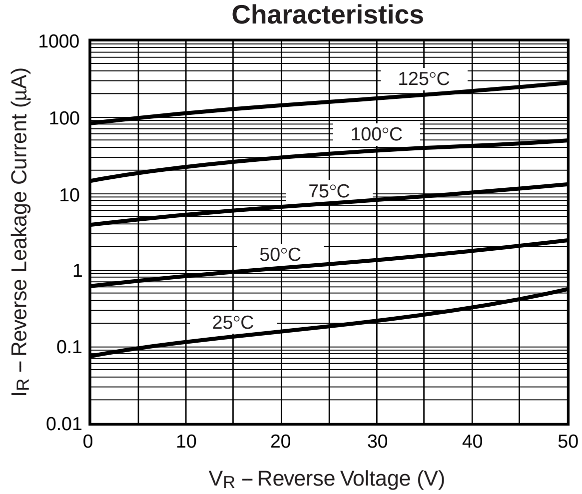


Fig. 4 – Typical Capacitance vs. Reverse Applied Voltage