BAS16DW, BAV70DW, BAV756DW, MMBD4448SDW

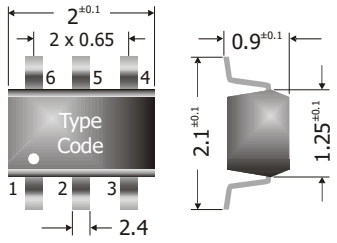
SMD Small Signal Diode Arrays
SMD Kleinsignal-Dioden-Arrays

I_{FAV} = 150 mA
V_{F1} < 0.715 V
T_{jmax} = 150°C

V_{RRM} = 75 V
I_{FSM1} = 2 A
t_{rr} < 4 ns

Version 2018-08-30

SOT-363



Dimensions - Maße [mm]

Typical Applications
Signal processing, High-speed Switching, Rectifying
Commercial grade
Suffix -Q: AEC-Q101 compliant [1])
Suffix -AQ: in AEC-Q101 qualification [1])

Typische Anwendungen
Signalverarbeitung, Schnelles Schalten, Gleichrichten
Standardausführung
Suffix -Q: AEC-Q101 konform [1])
Suffix -AQ: in AEC-Q101 Qualifikation [1])

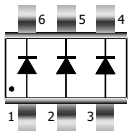
Features
Very low t_{rr}, C_j and I_R
Compliant to RoHS, REACH, Conflict Minerals [1])

Besonderheiten
Sehr niedriges t_{rr}, C_j und I_R
Konform zu RoHS, REACH, Konfliktmineralien [1])

Mechanical Data [1])		**Mechanische Daten [1])**
Taped and reeled	3000 / 7"	Gegurtet auf Rolle
Weight approx.	0.01 g	Gewicht ca.
Case material	UL 94V-0	Gehäusematerial
Solder & assembly conditions	260°C/10s MSL = 1	Löt- und Einbaubedingungen

BAS16DW/-AQ

3 Single Diodes

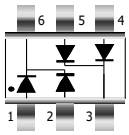


Type Code KW

1, 2, 3 = A 4, 5, 6 = C

BAV70DW

2 x 2 Common Cathode

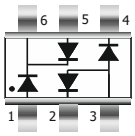


Type Code A4

1 = A1, 2 = A2, 3 = C3/C4
4 = A3, 5 = A4, 6 = C1/C2

BAV756DW

2 x 2 Common Cathode/ Anode

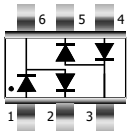


Type Code B7

1 = A1, 2 = C2, 3 = A2/A3
4 = C3, 5 = A4, 6 = C1/C4

MMBD4448SDW

4 in Bridge Config-uration



Type Code KB

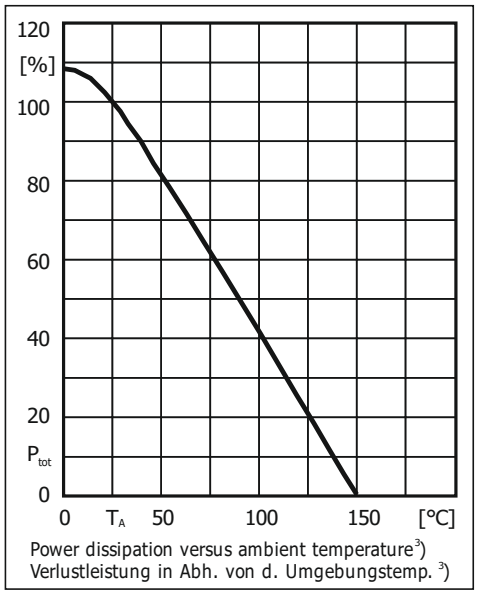
1 = A1, 2 = C1, 3 = AC2
4 = A2, 5 = C2, 6 = AC1

Maximum ratings [2])			**Grenzwerte [2])**
Power dissipation (per device) – Verlustleistung (pro Bauteil)		P_{tot}	200 mW [3])
Maximum average forward current – Dauergrenzstrom		I_{FAV}	150 mA [3])
Repetitive peak forward current – Periodischer Spitzenstrom		I_{FRM}	300 mA [3])
Peak forward surge current Stoßstrom in Fluss-Richtung	$t_p \le 1$ s $t_p \le 1$ µs	I_{FSM}	0.5 A 2 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	MMBD4448SDW, BAS16DW/-AQ BAV756DW BAV70DW	V_{RRM}	75 V 90 V 100 V
Junction/ Storage temperature – Sperrschicht-/Lagerungstemperatur		$T_{j/S}$	-55…+150°C

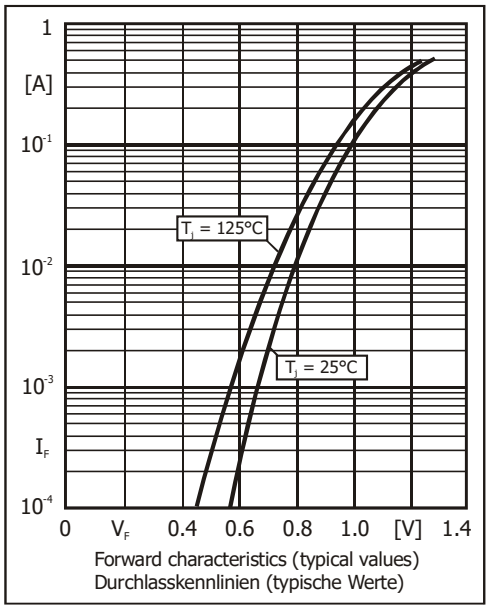
1 Please note the detailed information on our website or at the beginning of the data book
Bitte beachten Sie die detaillierten Hinweise auf unserer Internetseite bzw. am Anfang des Datenbuches
2 T_A = 25°C and per diode, unless otherwise specified – T_A = 25°C und pro Diode, wenn nicht anders angegeben
3 Mounted on 3 mm² copper pads per terminal – Montage auf 3 mm² Kupferbelag (Lötpads) je Anschluss

Characteristics **Kennwerte**

					BAS16DW/ -AQ	BAV70DW BAV756DW	MMBD4448SDW
Forward voltage Durchlass-Spannung [1])	T_j = 25°C	I_F =	1 mA 5 mA 10 mA 50 mA 100 mA 150 mA	V_F	< 715 mV – < 855 mV < 1.0 V – < 1.25 V	< 715 mV – < 855 mV < 1.0 V – < 1.25 V	– 620 ... 720 mV < 855 mV – < 1.0 V < 1.25 V
Leakage current Sperrstrom [1])	T_j = 25°C	V_R =	20 V 25 V 75 V 80 V	I_R	< 30 nA – < 1.0 µA –	– < 30 nA – < 0.5 µA	< 25 nA – – < 100 nA
	T_j = 150°C	V_R =	25 V 75 V 80 V	I_R	< 30 µA < 50 µA –	– < 30 µA < 100 µA	< 30 µA < 50 µA –
Junction capacitance Sperrschichtkapazität	V_R = 0 V, f = 1 MHz			C_T	typ. 2 pF [2])		
Reverse recovery time Sperrverzug	I_F = 10 mA über/through I_R = 10 mA bis/to I_R = 1 mA			t_{rr}	< 4 ns [2])		
Thermal resistance junction to ambient Wärmewiderstand Sperrschicht – Umgebung				R_{thA}	< 400 K/W [3])		



Power dissipation versus ambient temperature[3])
Verlustleistung in Abh. von d. Umgebungstemp. [3])



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

Disclaimer: See data book page 2 or website
Haftungssauschluss: Siehe Datenbuch Seite 2 oder Internet

1 Tested with pulses t_p = 300 µs, duty cycle ≤ 2%
Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%
2 Valid per diode – Gültig pro Diode
3 Mounted on 3 mm² copper pads per terminal
Montage auf 3 mm² Kupferbelag (Lötpads) je Anschluss

