

Plastic-Encapsulate Schottky Barrier Diodes

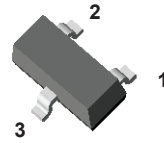
PRIMARY CHARACTERISTICS	
P_D	200mW
V_{RRM}	30V
$I_{F(AV)}$	200mA
V_F	0.33V
t_{rr}	5ns
$T_{J,Max}$	125°C

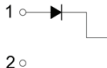
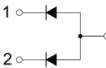
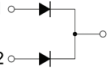
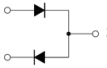
FEATURES

- Low Current Leakage
- For General Purpose Switching Applications
- Moisture Sensitivity Level 1

SOT-23 PACKAGE

Marking :



PN	BAR43	BAR43A	BAR43C	BAR43S
Equivalent Circuit				
Marking	D95	DB1	DB2	DA5

MECHANICAL DATA

- Case : Molded plastic, SOT-23
- Polarity : Indicated by cathode band
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

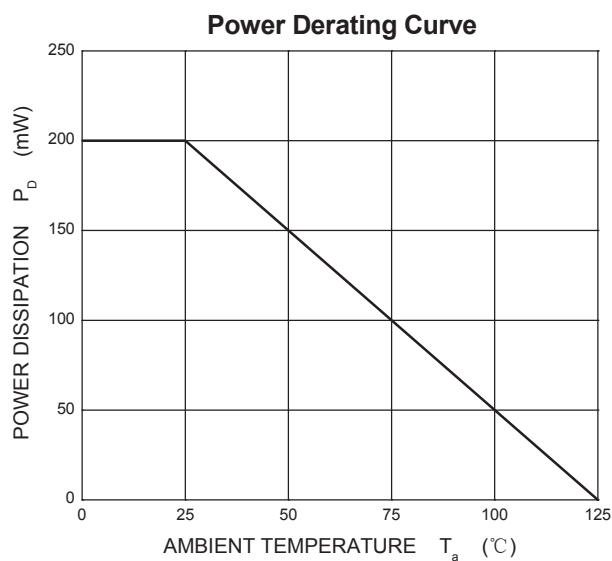
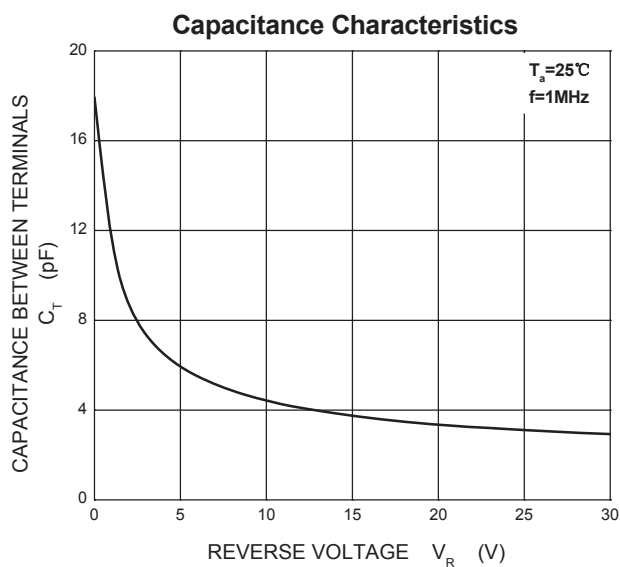
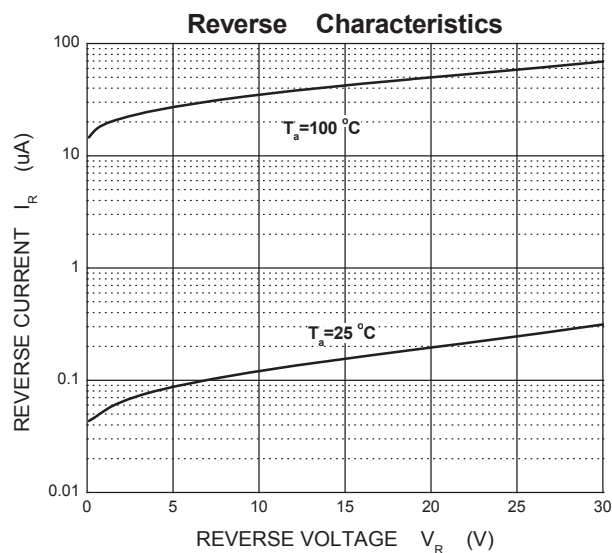
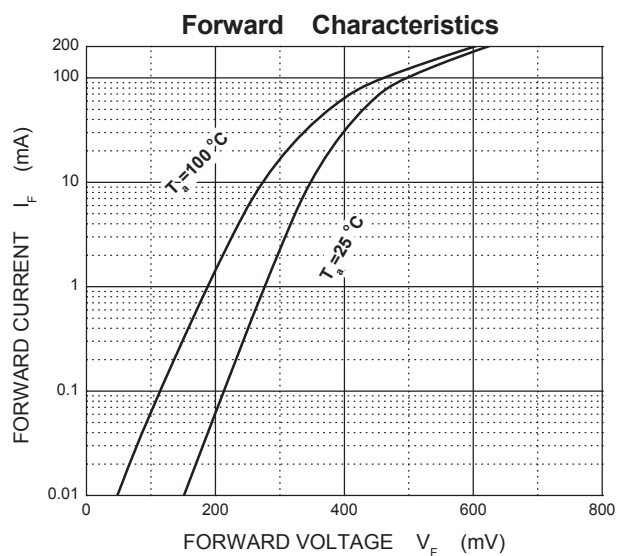
Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	30	V
V_{RWM}	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	21	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	0.75	A
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	°C/W
T_J	Junction Temperature	125	°C
T_{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	30			V
Reverse current	I_R	$V_R=25\text{V}$			0.5	μA
Forward voltage	V_F	$I_F=2\text{mA}$	0.26		0.33	V
		$I_F=15\text{mA}$			0.45	
		$I_F=100\text{mA}$			0.8	
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1\times I_R$, $R_L=100\Omega$			5	ns



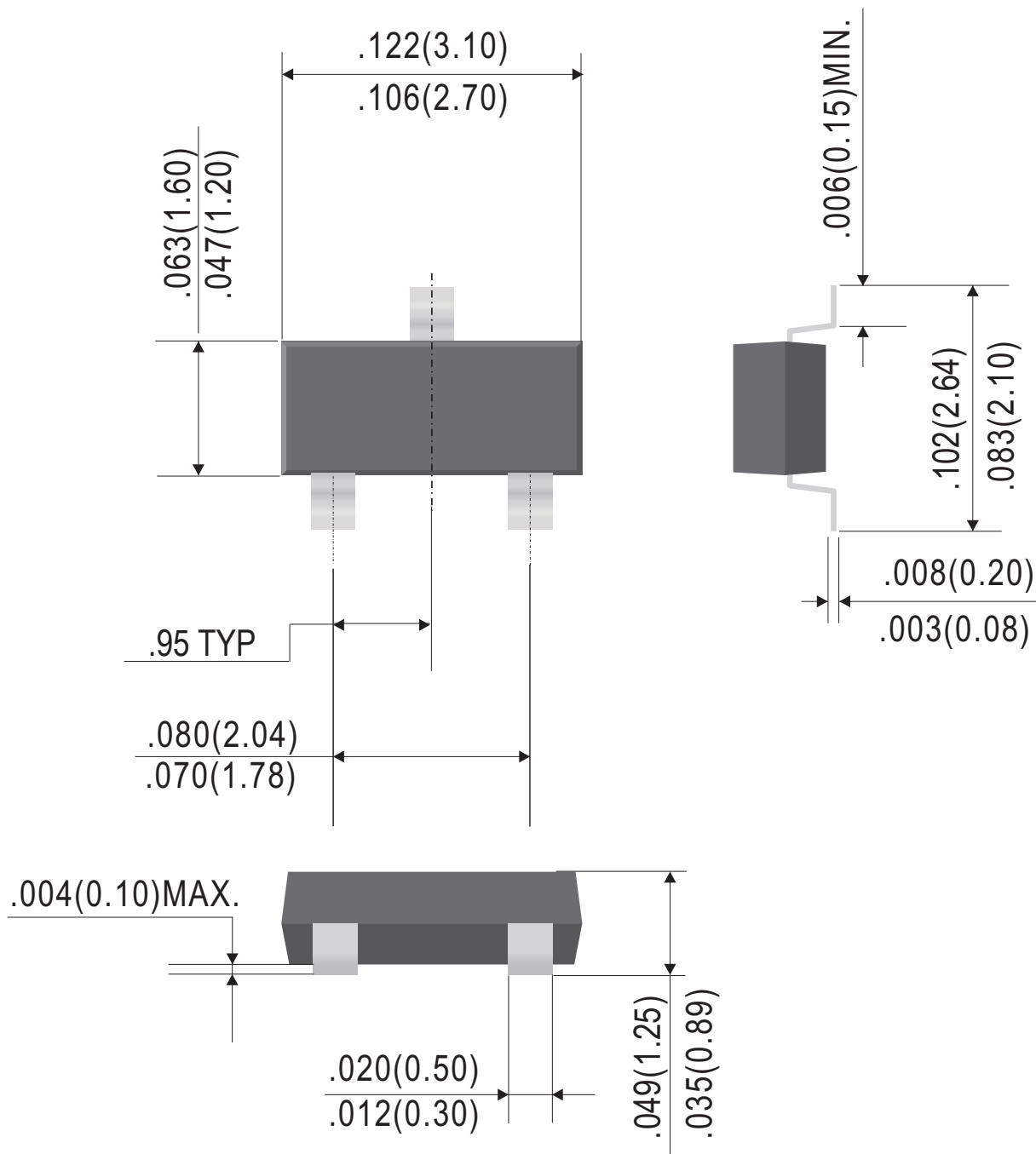
Typical Characteristics





Outline Drawing

SOT-23



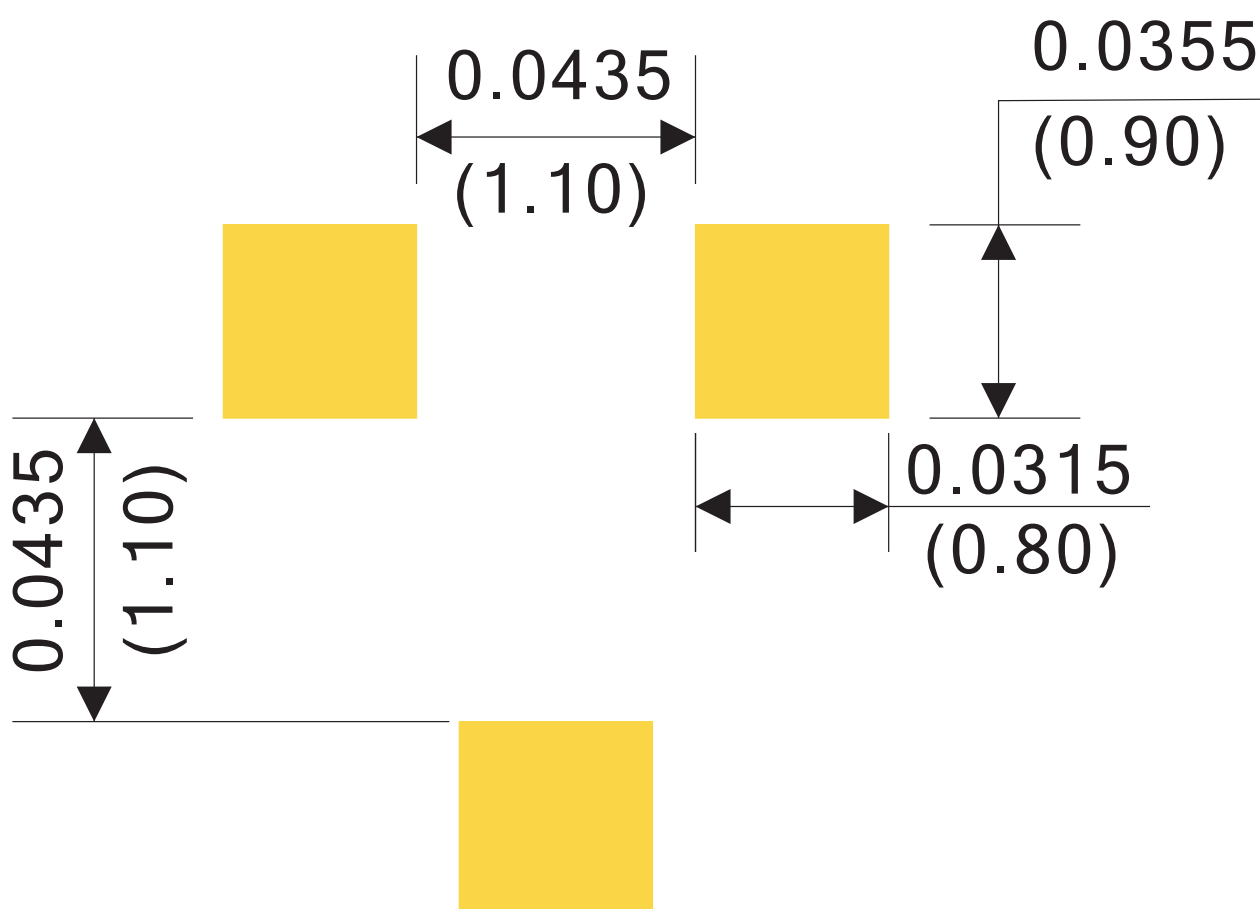
Dimensions in inches and (millimeters)

Rev.E



Suggested Soldering Pad Layout

SOT-23

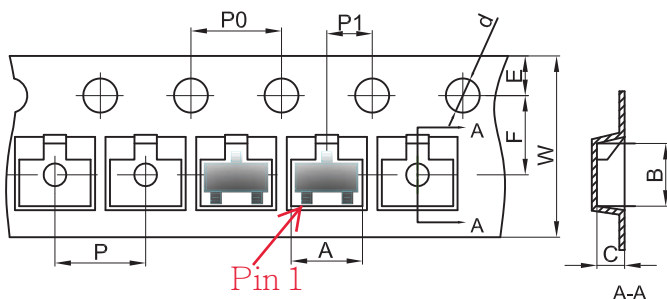


Dimensions in inches and (millimeters)

RevA



SOT-23 Embossed Carrier Tape

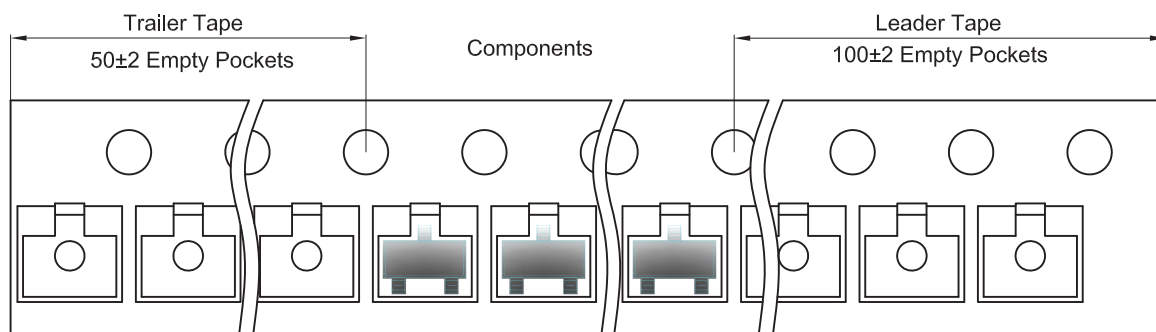


Packaging Description:

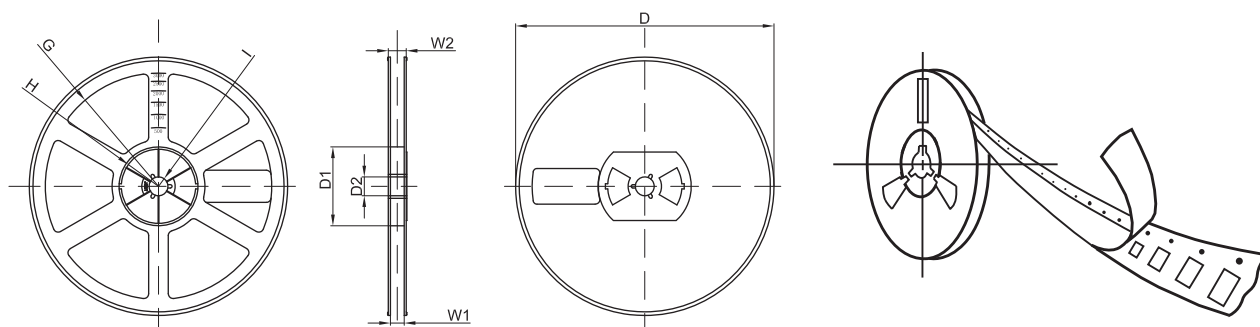
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer



SOT-23 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

2025.02_Rev.B



Ordering Information:

Device PN	Packing ⁽⁴⁾	Packing
BAR43-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	D95	Tape&Reel: 3 Kpcs/Reel
BAR43A-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	DB1	Tape&Reel: 3 Kpcs/Reel
BAR43C-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	DB2	Tape&Reel: 3 Kpcs/Reel
BAR43S-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	DA5	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) Packing code suffix "G" for RoHS product : Packing code Suffix "H" for halogen free product.
All materials and products supplied comply with the U.S. Toxic Substances Control Act statement, PBT Chemicals.

(3) Willas brand abbreviation, Label Type does not display

(4) There may be additional marking, which relates to the lot trace code information (data code and vendor code), the logo or the environmental category on the device

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