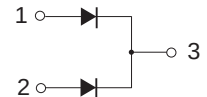
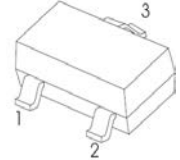
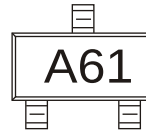


100mA Plastic-Encapsulate Switching Diode - 50V
PRIMARY CHARACTERISTICS

V_R	50V
I_O	100mA
$V_F@I_F=10mA(TYP)$	0.67V
$T_{J,Max}$	150°C

SOT-23 PACKAGE
MARKING: A61

FEATURES

- High speed switching
- Low capacitance
- Moisture Sensitivity Level 1

MECHANICAL DATA

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

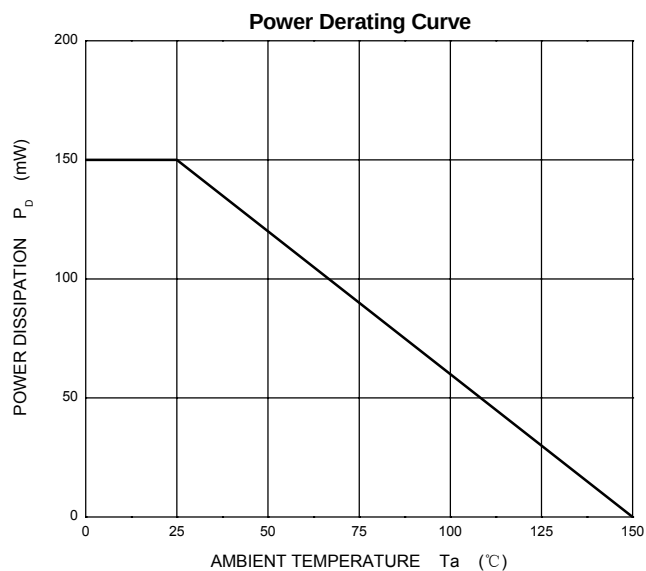
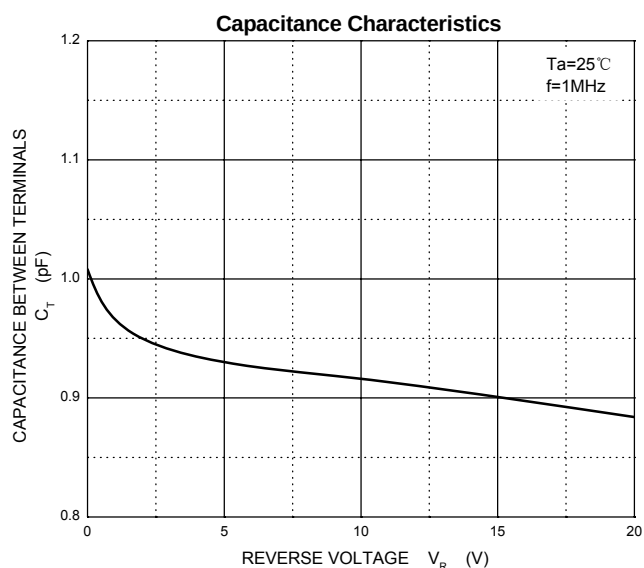
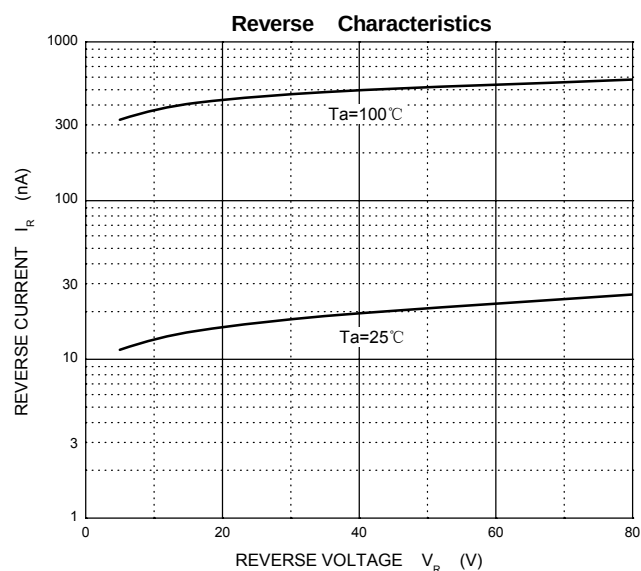
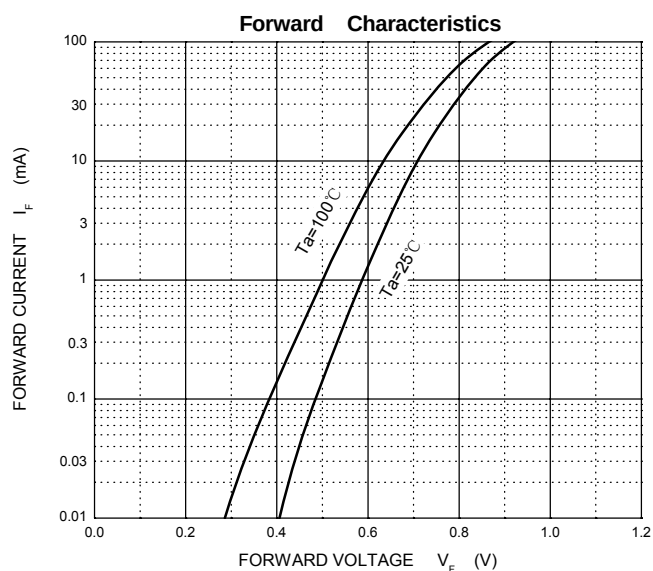
Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	75	V
DC Blocking Voltage	V_R	50	V
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Average Rectified Output Current	I_O	100	mA
Power Dissipation	P_D	150	mW
Thermal resistance From Junction to ambient	$R_{\theta JA}$	833	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

Electrical Characteristics @Ta=25°C

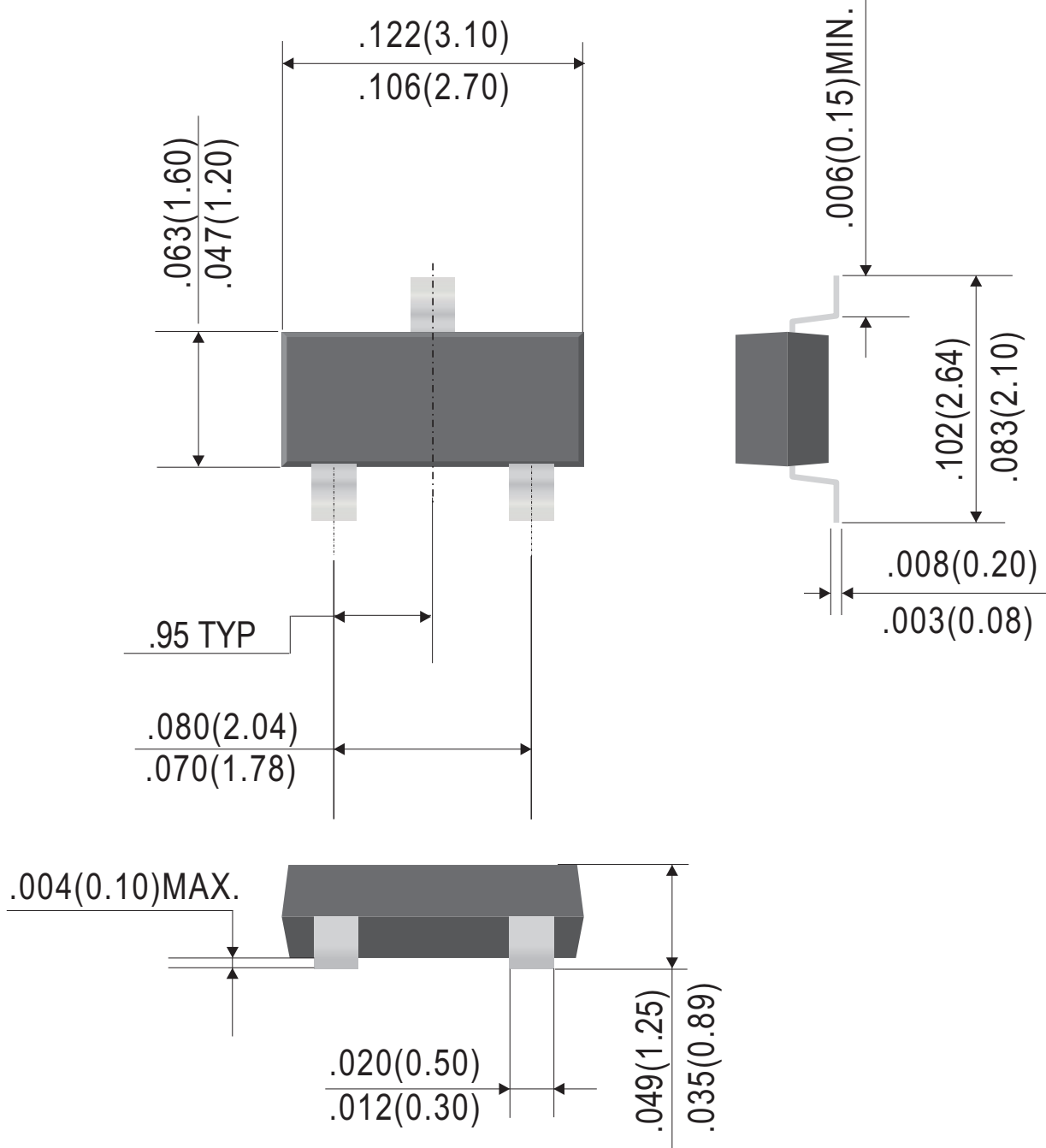
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F=10mA$		0.67	0.9	V
	V_{F2}	$I_F=50mA$		0.75	1.0	V
	V_{F3}	$I_F=100mA$		0.85	1.2	V
Reverse current	I_R	$V_R=50V$			0.1	uA
Reverse recovery time	t_{rr}	$I_F=10mA, V_R=6V, R_L=100\Omega$ $I_{rr}=0.1*I_R$			3.0	ns
Capacitance between terminals	C_T	$V_R=0, f=1MHz$		1.1	4.0	pF

Typical Characteristics



Outline Drawing

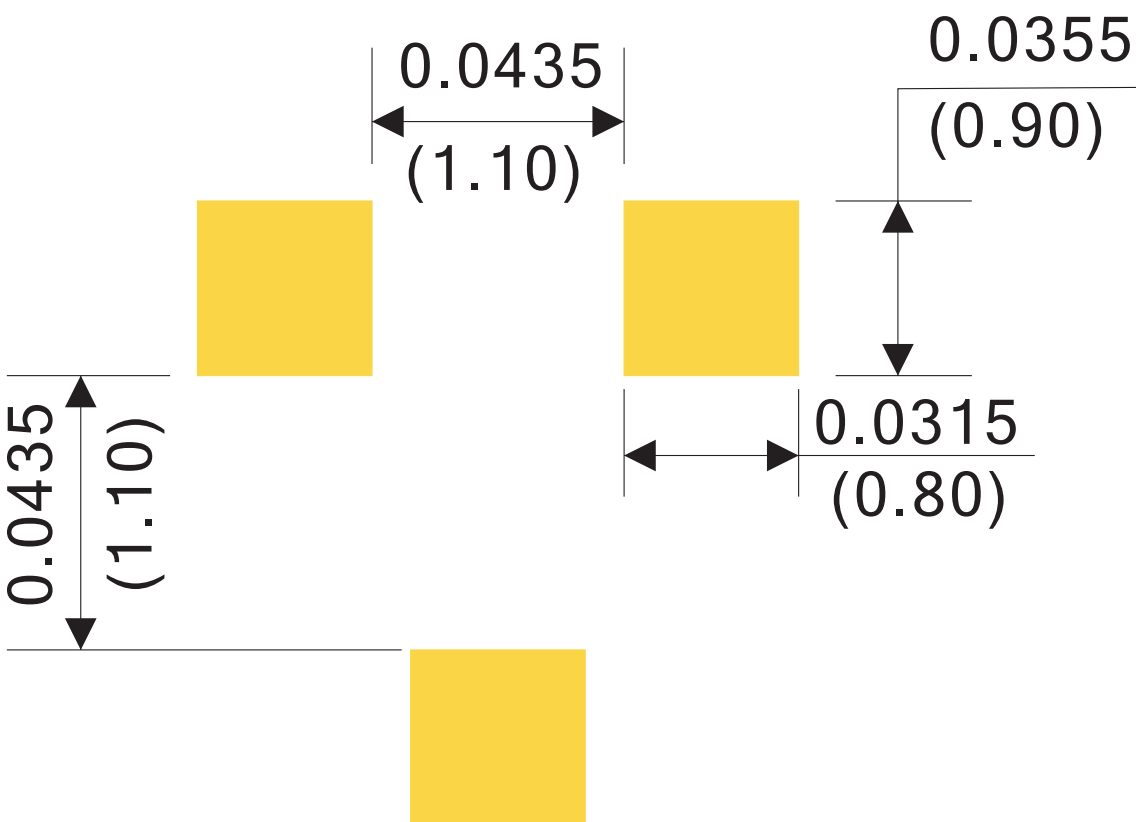
SOT-23

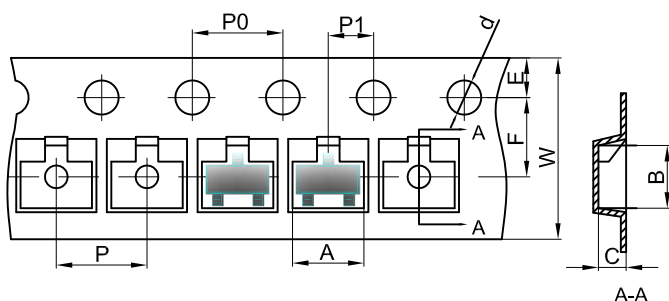


Dimensions in inches and (millimeters)

Rev.E

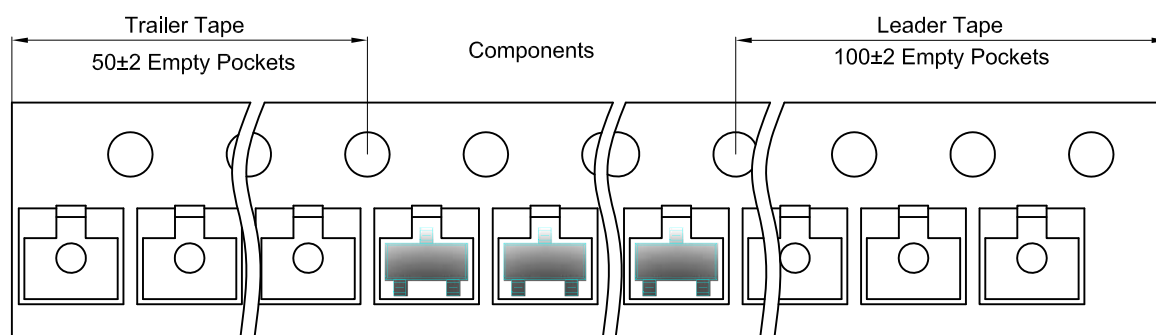
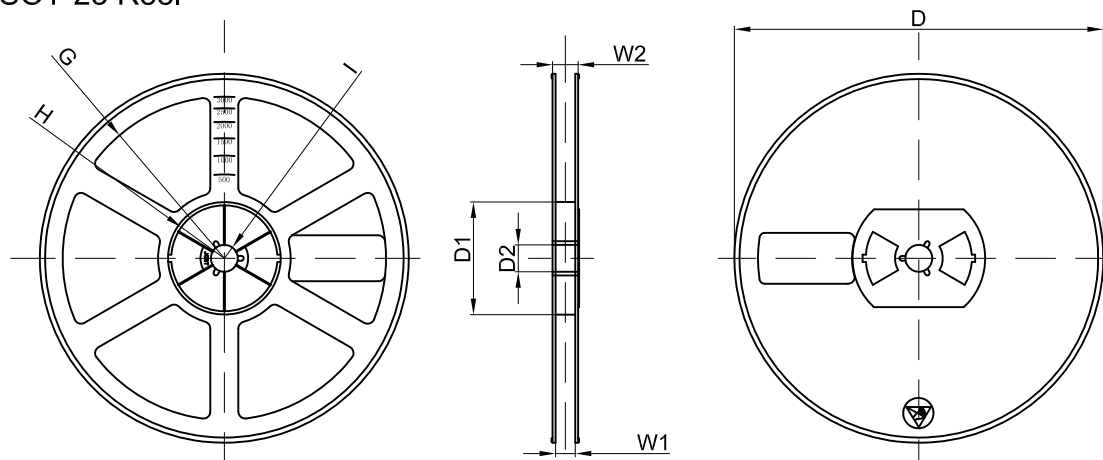


Suggested Soldering Pad Layout	SOT-23
 0.0435 (1.10) 0.0435 (1.10) 0.0355 (0.90) 0.0315 (0.80)	
Dimensions in inches and (millimeters)	
RevA	

100mA Plastic-Encapsulate Switching Diode - 50V
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

Ordering Information:

Device PN	Packing
MC2838 -T ⁽¹⁾ G ⁽²⁾ -WS ⁽³⁾	Tape&Reel: 3 Kpcs/Reel

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

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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

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