

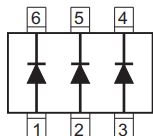
DESCRIPTION

Planar Schottky barrier diodes are encapsulated in the SOT-363 small plastic SMD package. Single diodes and dual diodes with different pin configuration are available.

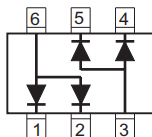
FEATURES

- * Low forward voltage
- * Guard ring protected
- * Small plastic SMD package

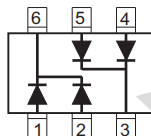
SYMBOL



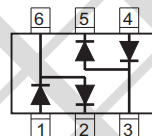
BAT54TW



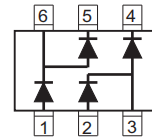
BAT54ADW



BAT54CDW



BAT54SDW



BAT54BRW

MAXIMUM RATINGS (T =25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Repetitive peak reverse voltage		V_{RRM}			30	V
Reverse voltage		V_R			30	V
Repetitive peak forward current	Rated VR, Square Wave, 20KHz	I_{FRM}			300	mA
Forward surge current	tp<1s	I_{FSM}			600	mA
Forward current		I_F			200	mA
Power dissipation		P_D			200	mW
Thermal Resistance	Junction to ambient ,Note 1	$R_{\theta JA}$		500		°C/W
Junction temperature		T_J	-55		+125	°C
Storage temperature		T_{STG}	-55		+125	°C
Forward voltage	$I_F = 0.1 \text{ mA}$	V_F			0.240	V
	$I_F = 1 \text{ mA}$	V_F			0.320	V
	$I_F = 10 \text{ mA}$	V_F			0.400	V
	$I_F = 30 \text{ mA}$	V_F			0.500	V
	$I_F = 100 \text{ mA}$	V_F			1.000	V
Reverse current	$V_R = 25 \text{ V}$	I_R			2.0	μA
Diode capacitance	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	C_T			10.0	pF
Reverse recovery time	$I_F = 10 \text{ mA}, V_R = 10 \text{ mA}, I_{RR} = 0.1 \times I_{R1}, R_L = 100 \Omega$	trr			5	ns

Note 1. Device mounted on FR-4 PCB, 1 inch x0.85 inchx 0.062 inch.

Typical Electrical and Thermal Characteristics

FIG.1-TYPICAL FORWARD CHARACTERISTICS

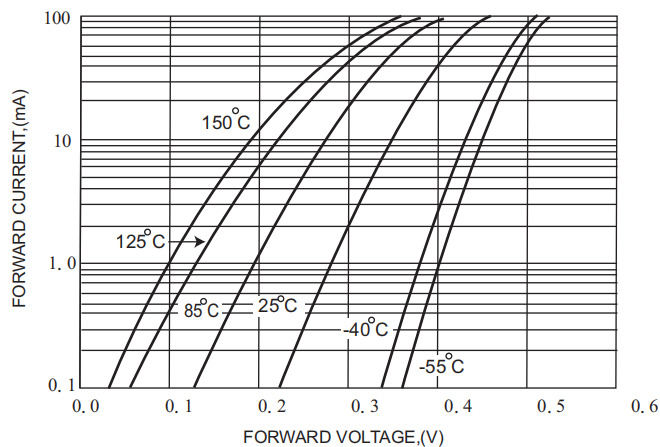


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

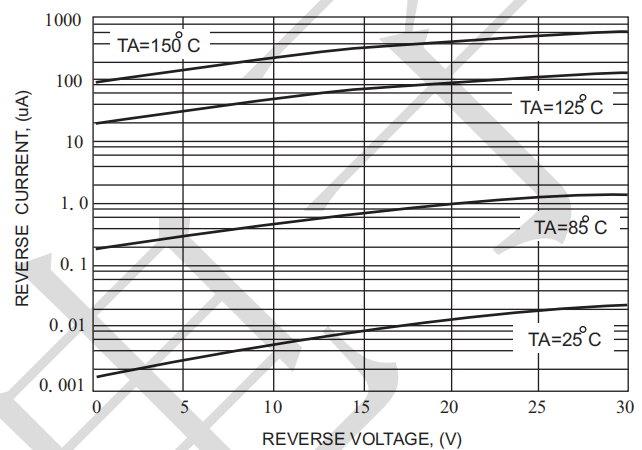
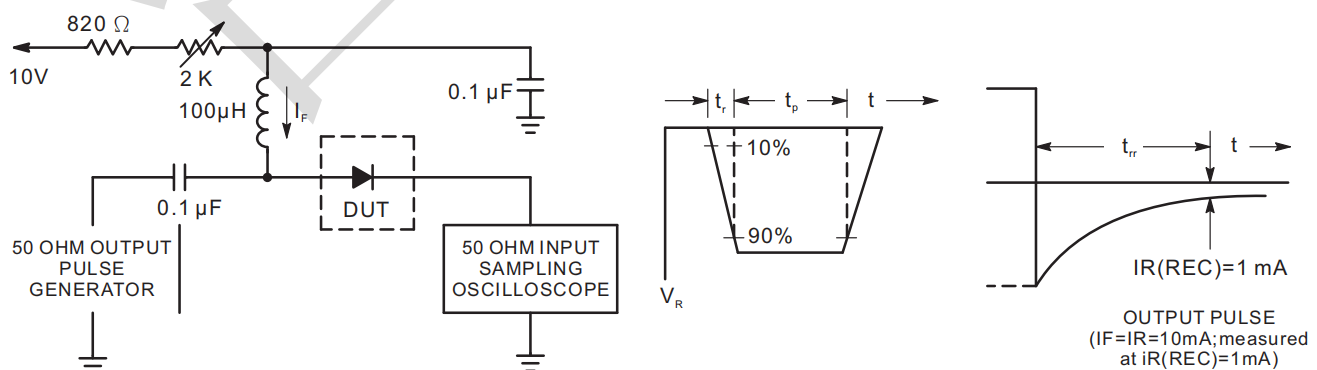
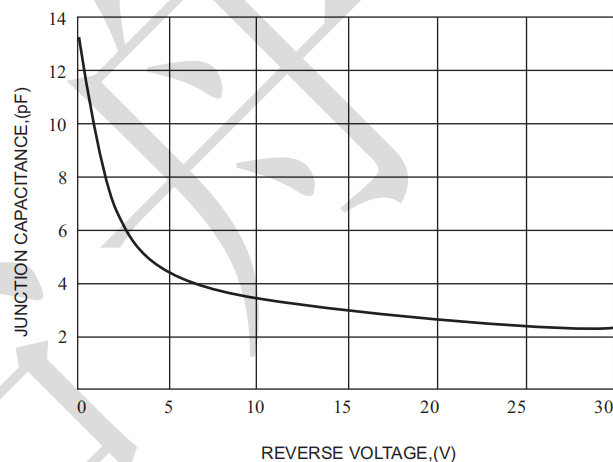
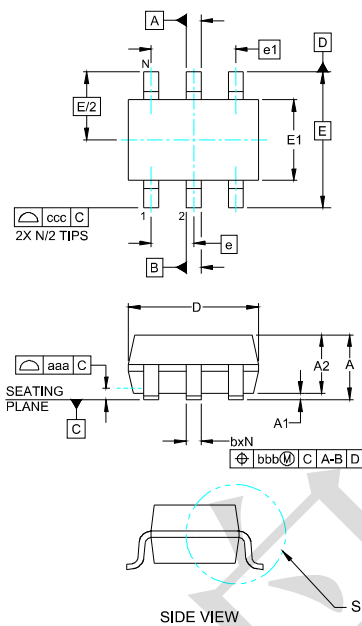


FIG.3-TYPICAL JUNCTION CAPACITANCE



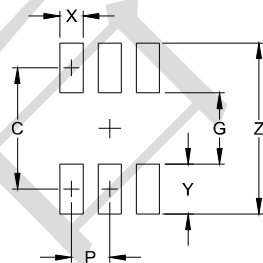
- Notes :
1. A2.0 Kohm variable resistor adjusted for a forward Current (I_F) of 10mA.
 2. Input pulse is adjusted so $I_R(\text{peak})$ is equal to 10 mA.
 3. $t_p \gg t_{rr}$.

Outline Drawing - SOT-363(2.0X2.1)



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	.043	-	-	1.10
A1	.000	-	.004	0.00	-	0.10
A2	.028	.035	.039	0.70	0.90	1.00
b	.006	-	.012	0.15	-	0.30
c	.003	-	.009	0.08	-	0.22
D	.071	.079	.087	1.80	2.00	2.20
E	.045	.049	.053	1.15	1.25	1.35
E1	.083 BSC	-	-	2.10 BSC	-	-
e	.026 BSC	-	-	0.65 BSC	-	-
e1	.051	-	-	1.30 BSC	-	-
L	.010	.014	.018	0.26	0.36	0.46
L1	(.017)	-	-	(0.42)	-	-
N	6	-	-	6	-	-
θ_1	0°	-	8°	0°	-	8°
aaa	.004	-	-	0.10	-	-
bbb	.004	-	-	0.10	-	-
ccc	.012	-	-	0.30	-	-

Land Pattern - SOT-363



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.073)	(1.85)
G	.039	1.00
P	.026	0.65
X	.016	0.40
Y	.033	0.85
Z	.106	2.70