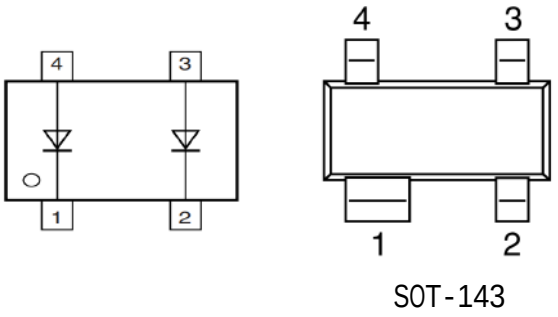
SOT-143 Plastic-Encapsulate Diodes

Silicon Epitaxial Planar Diodes

High voltage switching diode

Marking : KT8



SOT-143

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	200	V
Forward Current	$I_{F(AV)}$	400	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current at t = 10 ms at t = 100 µs at t = 1 µs	I_{FSM}	1.7 3 9	A
Power Dissipation	P_{tot}	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	250	-	V
Forward Voltage at I_F = 100 mA at I_F = 200 mA	V_F	- -	1 1.25	V
Reverse Current at V_R = 200 V, T_j = 25 °C at V_R = 200 V, T_j = 150 °C	I_R	- -	100 100	nA µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	5	pF
Reverse Recovery Time at I_F = I_R = 30 mA, I_{rr} = 0.1 X I_R, R_L = 100 Ω	t_{rr}	-	50	ns

Typical Characteristics

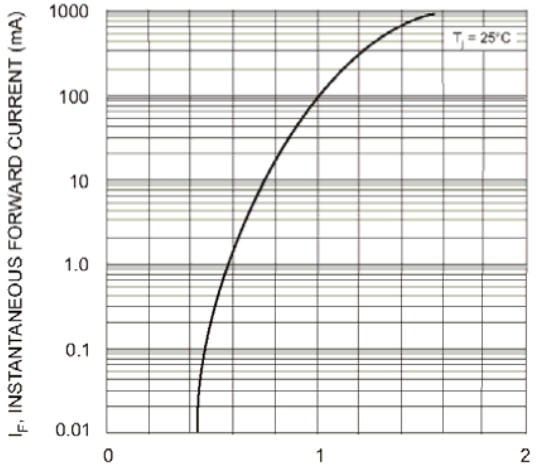


Fig. 1 Forward Characteristics

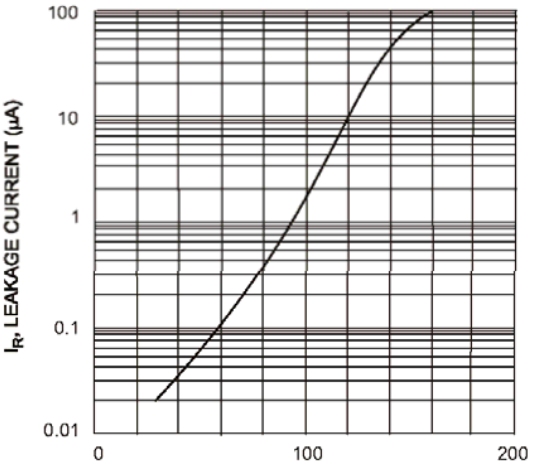
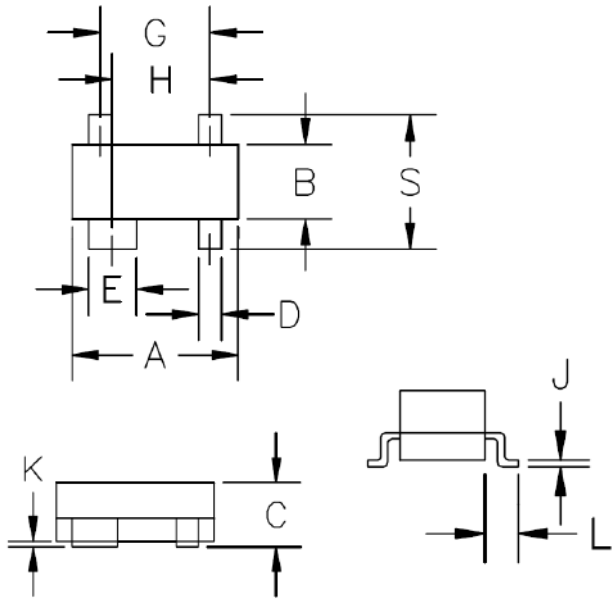


Fig. 2 Leakage Current vs Junction Temperature

SOT- 143 Package Outline Dimensions

Plastic surface mounted package



DIMENSIONS					
DIMᴺ	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	–
B	.047	.055	1.20	1.40	–
C	.031	.047	.80	1.20	–
D	.014	.018	.37	.510	–
E	.030	.035	.76	.940	–
G	.076 BSC		1.92 BSC		–
H	.068 BSC		1.72 BSC		–
J	.003	.005	.085	.180	–
K	.002	.005	.013	0.10	–
L	.010	.022	–	.55	REF
S	.082	.104	2.10	2.64	–