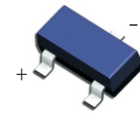


CDST-4448-G

High Speed

RoHS Device



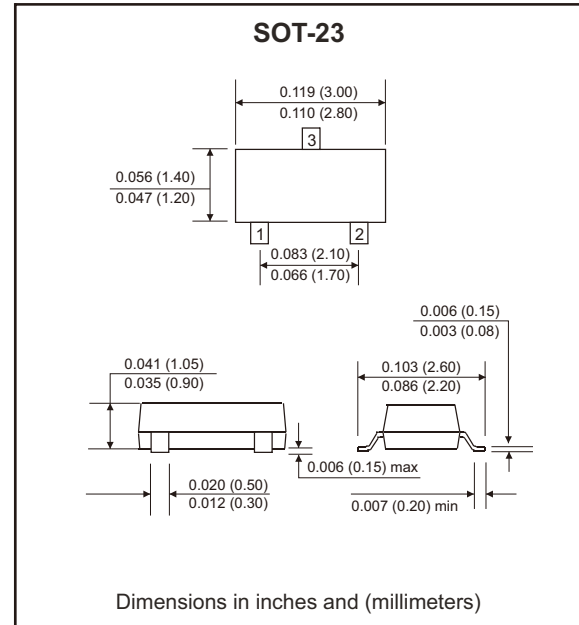
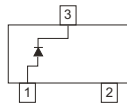
Features

- Fast switching diode.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.

Mechanical data

- Case: SOT-23.
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026.
- Weight: 0.008 grams (approx.).

Circuit Diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Limits	Unit
Non-Repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive peak reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage	$V_{R(RMS)}$	53	V
Forward continuous current	I_{FM}	500	mA
Average rectified output current	I_O	250	mA
Peak forward surge current	I_{FSM}	4.0	A
		2.0	
Power dissipation	P_D	350	mW
Thermal resistance-Junction to ambient air	$R_{\theta JA}$	357	°C/W
Storage temperature range	T_{STG}	-65 ~ +150	°C

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Max	Unit
Forward voltage	V_{F1}	$I_{F1}=5mA$	0.62	0.72	V
	V_{F2}	$I_{F2}=10mA$	-	0.855	
	V_{F3}	$I_{F3}=100mA$	-	1.0	
	V_{F4}	$I_{F4}=150mA$	-	1.25	
Reverse current	I_{R1}	$V_{R1}=75V$		2.5	μA
	I_{R2}	$V_{R2}=20V$		25	nA
Capacitance between terminals	C_T	$V_R=0V, f=1MHz$		4	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$		4	nS

Rating and Characteristic Curves (CDST-4448-G)

Fig.1 - Forward Characteristics

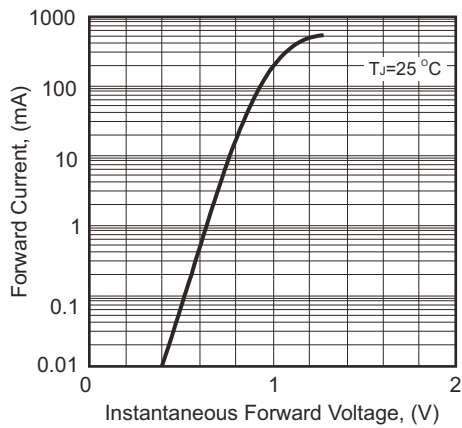
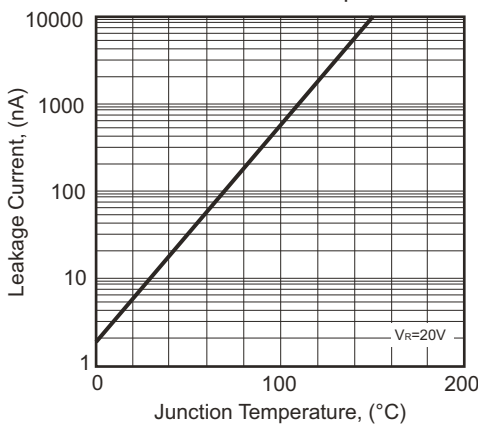
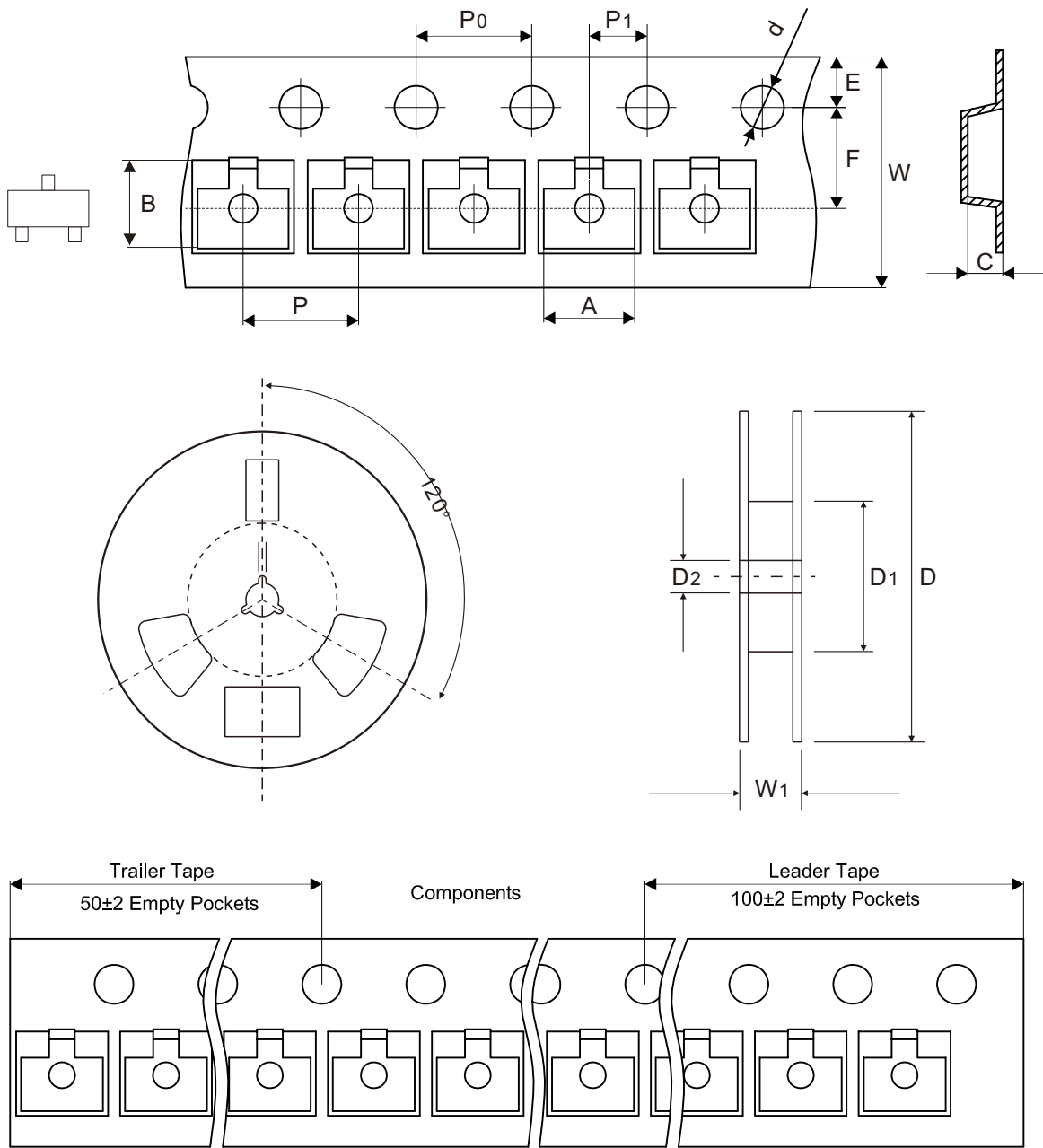


Fig.2 - Leakage Current vs Junction Temperature



Reel Taping Specification

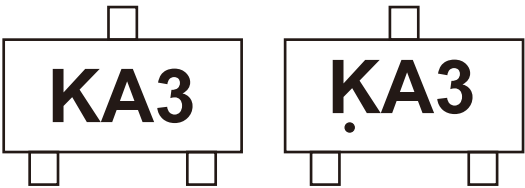


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

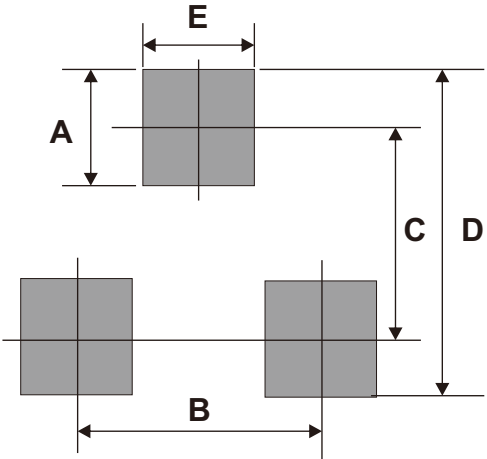
Part Number	Marking Code
CDST-4448-G	KA3



Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	1.90	0.075
C	2.02	0.080
D	2.82	0.111
E	0.80	0.031

Note: 1. The pad layout is for reference purposes only.



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7