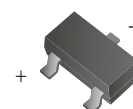


CDST-19-G/20-G

High Speed
RoHS Device



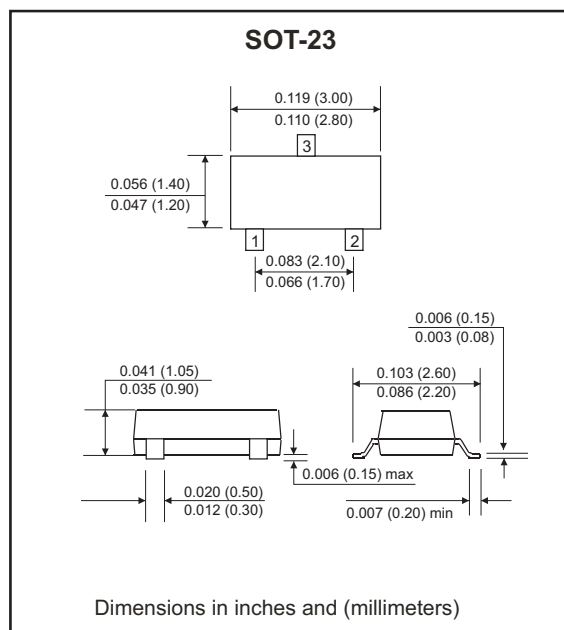
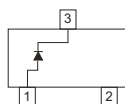
Features

- Fast switching diode.
- Surface mount package ideally 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 gram.

Circuit Diagram



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

Parameter	Symbol	CDST-19-G	CDST-20-G	Unit
Non-Repetitive peak reverse voltage	V_{RM}	100	150	V
DC blocking voltage	V_R	100	150	V
Average rectified output current	I_o	200		mA
Power dissipation	P_D	250		mW
Thermal resistance-Junction to ambient air	$R_{\theta JA}$	500		°C/W
Junction temperature	T_J	150		°C
Storage temperature range	T_{STG}	-65 ~ +150		°C

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
Reverse breakdown voltage CDST-19-G CDST-20-G	V_{BR}	$I_R=100\mu A$	100 150		V
Reverse leakage current CDST-19-G CDST-20-G	I_R	$V_R=100V$ $V_R=150V$		0.1	UA
Forward voltage	V_F	$I_F=100mA$ $I_F=200mA$		1 1.25	V
Junction capacitance	C_J	$V_R=0V, f=1MHz$		5	pF
Reverse recovery time	t_{rr}	$I_F=I_R=30mA, I_{rr}=0.1 \times I_R$		50	nS

Characteristic Curves (CDST-19-G/20-G)

Fig.1 - Forward Characteristics

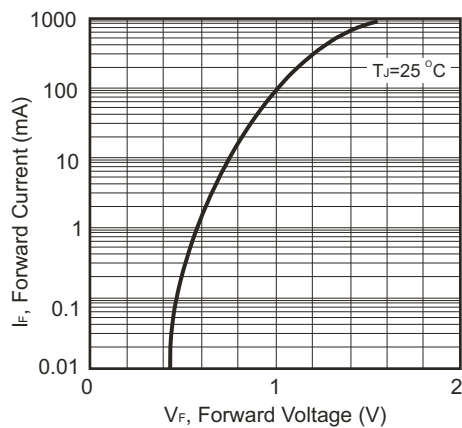
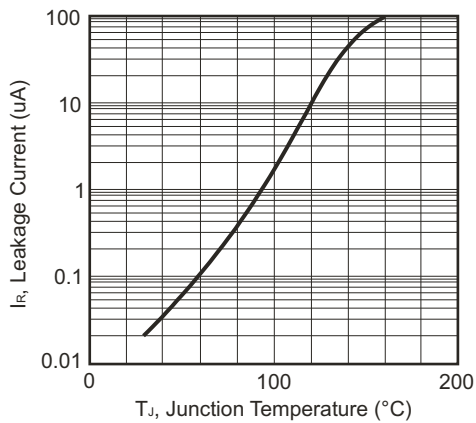
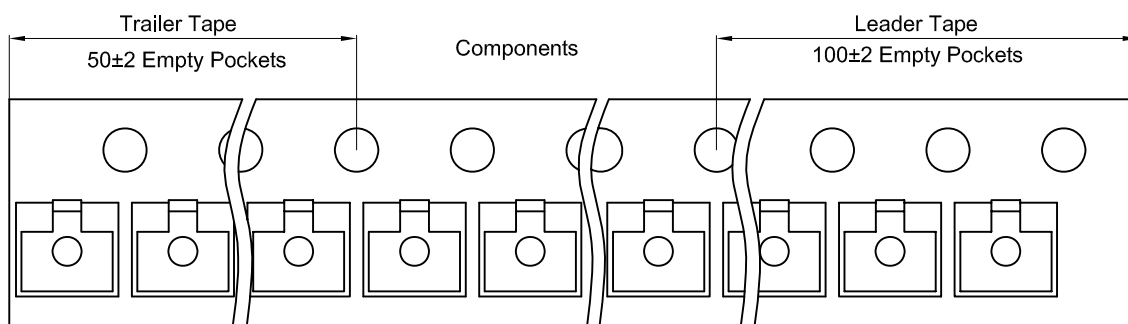
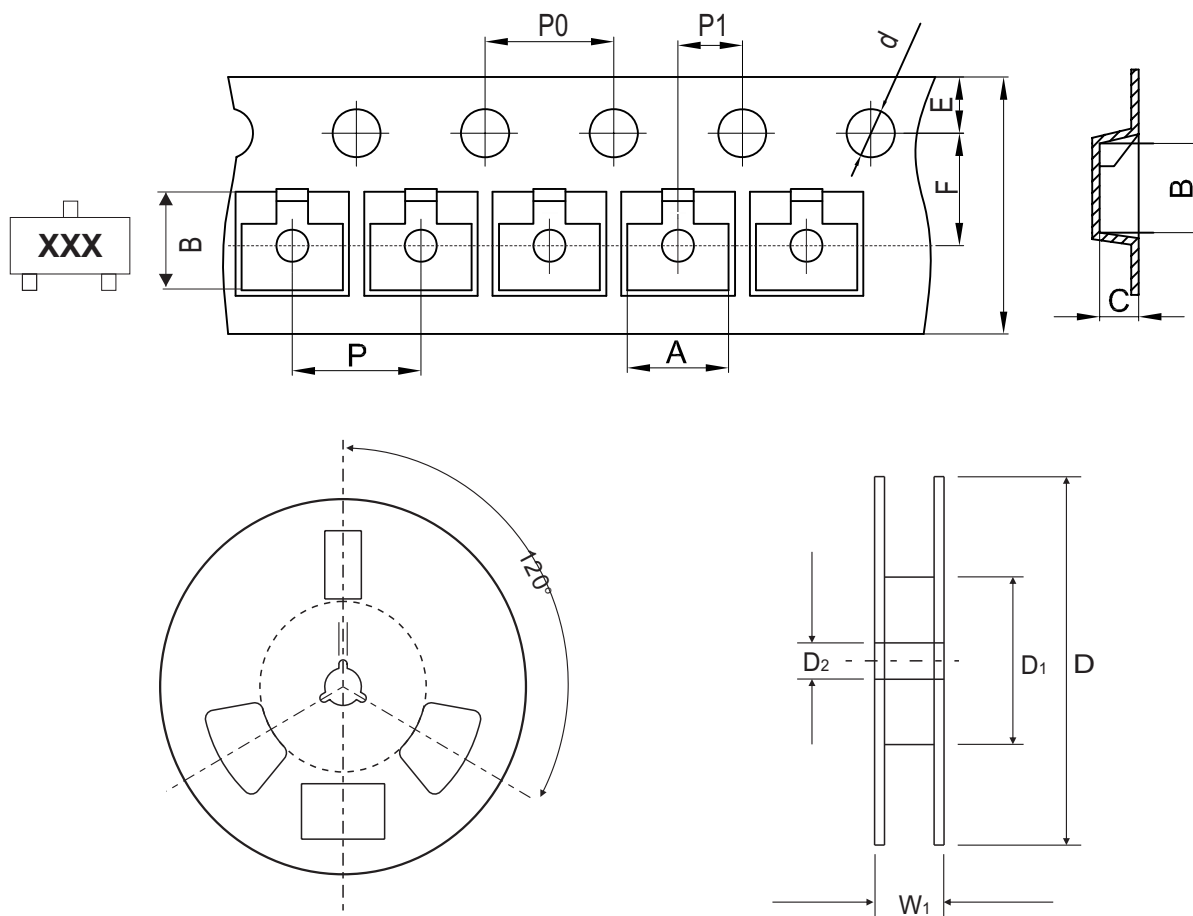


Fig.2 - Leakage Current vs Junction Temperature



Reel Taping Specification

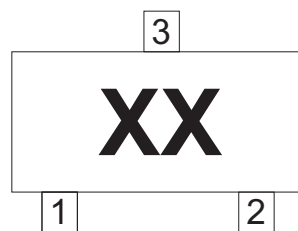


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

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 ± 1.0
	(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

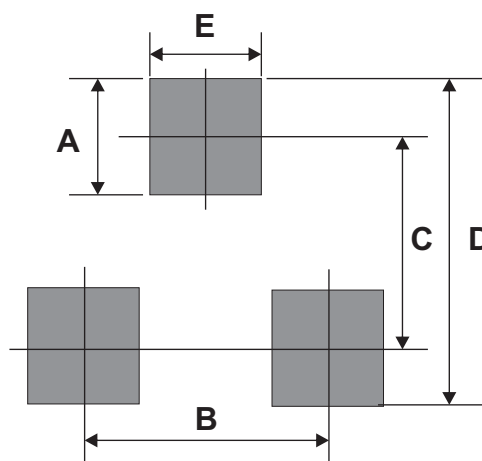
Part Number	Marking Code
CDST-19-G	JP
CDST-20-G	JR



xx = Product type marking code

Suggested 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



Standard Packaging

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