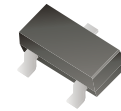


CDSV3-19-G/20-G/21-G

RoHS Device



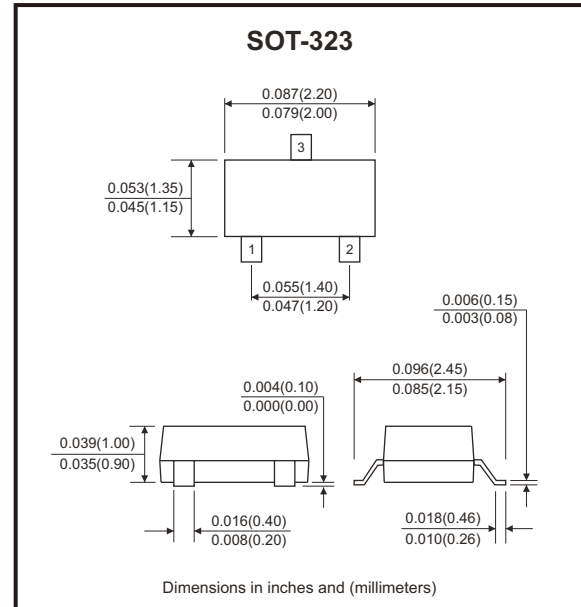
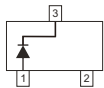
Features

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

Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026.

Circuit Diagram



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

Parameter	Symbol	CDSV3-19-G	CDSV3-20-G	CDSV3-21-G	Unit
Peak repetitive reverse voltage DC blocking voltage	V_{RRM} V_R	100	150	250	V
Average rectified output current	I_o	200			mA
Non-repetitive peak forward surge current @t=8.3ms	I_{FSM}	2.5			A
Power dissipation	P_D	200			mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	625			°C/W
Junction temperature	T_J	150			°C
Storage temperature range	T_{STG}	-55 ~ +150			°C

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	100 150 250		V
Reverse leakage current	I_R	$V_R=100V$ $V_R=150V$ $V_R=200V$		0.1	μA
Forward voltage	V_F	$I_F=100mA$ $I_F=200mA$		1 1.25	V
Diode capacitance	C_D	$V_R=0V, f=1MHz$		5	pF
Reverse recovery time	t_{rr}	$I_F=I_R=30mA, I_{rr}=0.1 \times I_R$		50	ns

Rating and Characteristic Curves (CDSV3-19-G/20-G/21-G)

Fig.1 - Forward Characteristics

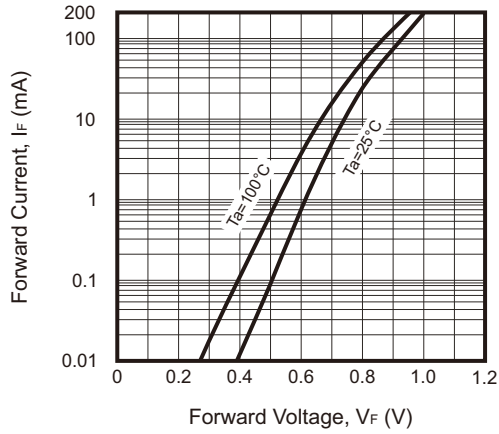


Fig.2 - Reverse Characteristics

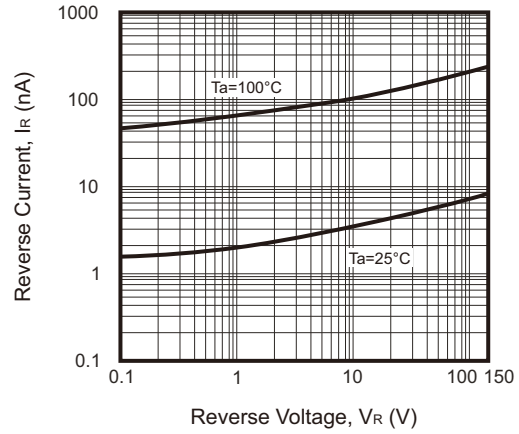


Fig.3 - Capacitance Characteristics Per Diode

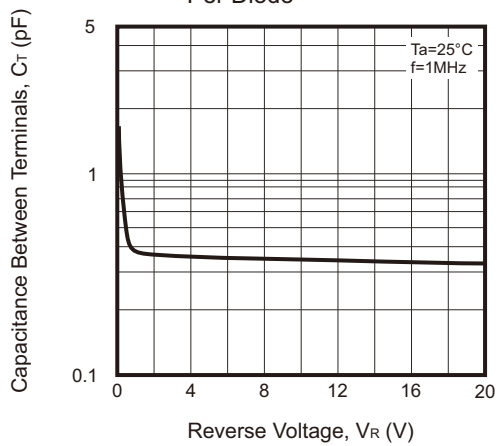
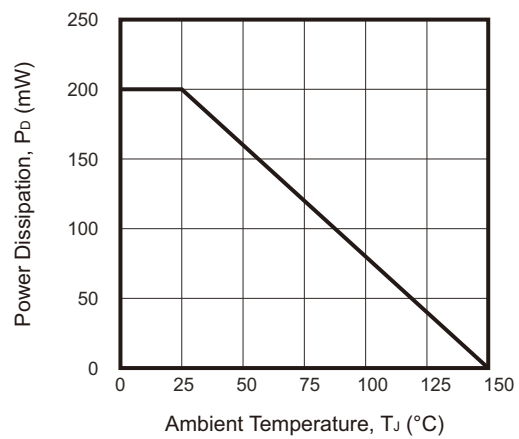
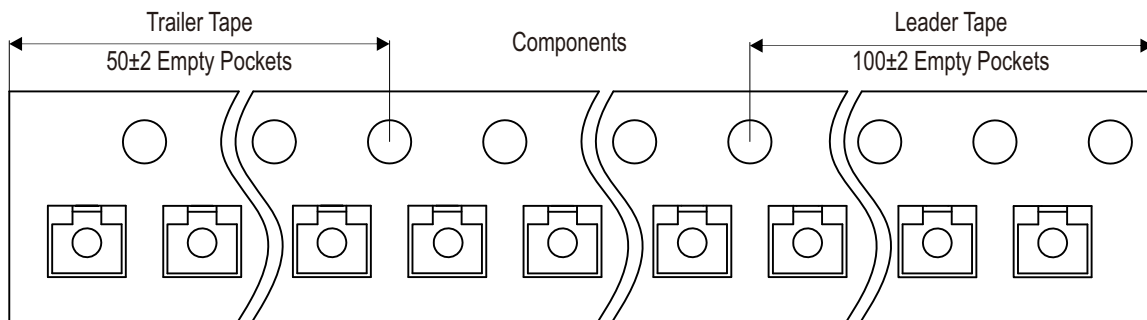
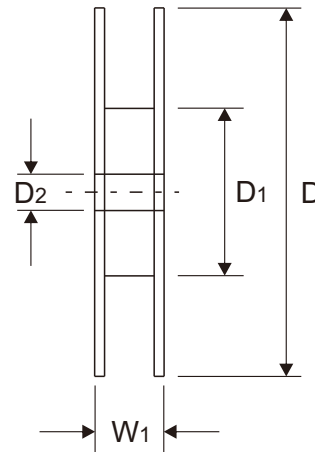
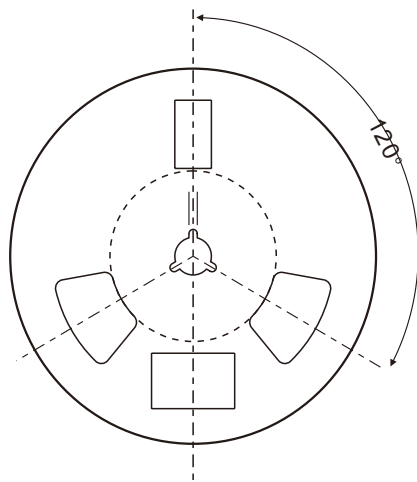
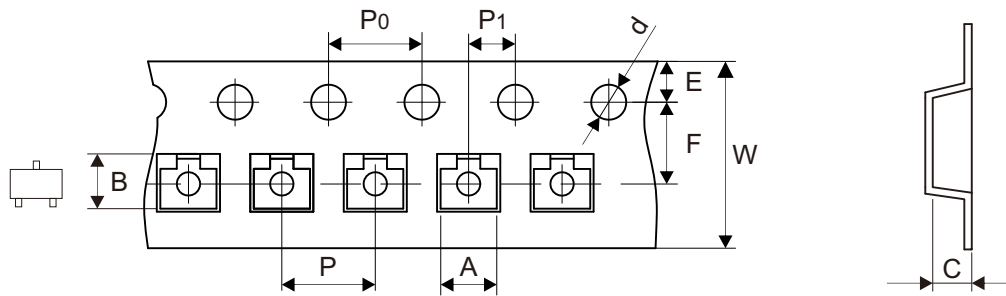


Fig.4 - Power Derating Curve



Reel Taping Specification



SOT-323	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.25 ± 0.05	2.55 ± 0.05	1.19 ± 0.05	1.55 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.089 ± 0.002	0.100 ± 0.002	0.047 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

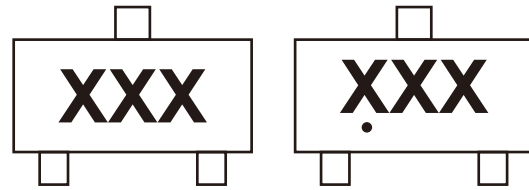
SOT-323	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.

REV:C

Marking Code

Part Number	Marking Code
CDSV3-19-G	KA8
CDSV3-20-G	KT2
CDSV3-21-G	KT3



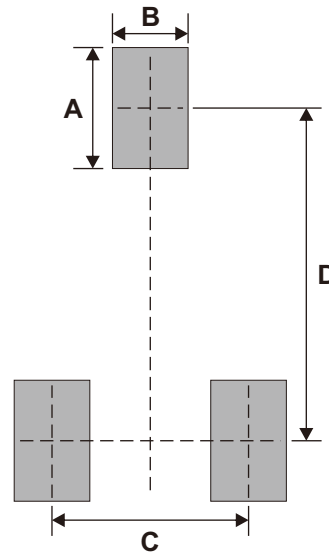
Solid dot = Control code

xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-323	
	(mm)	(inch)
A	0.80	0.031
B	0.50	0.020
C	1.30	0.051
D	2.20	0.087

Notes: 1. General tolerance: $\pm 0.05\text{mm}$.
2. The pad layout is for reference purposes only.



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-323	3,000	7