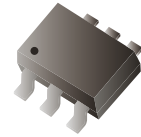


CDSV6-16-G/4148-G

Forward Current: 0.15A

Reverse Voltage: 75V

RoHS Device



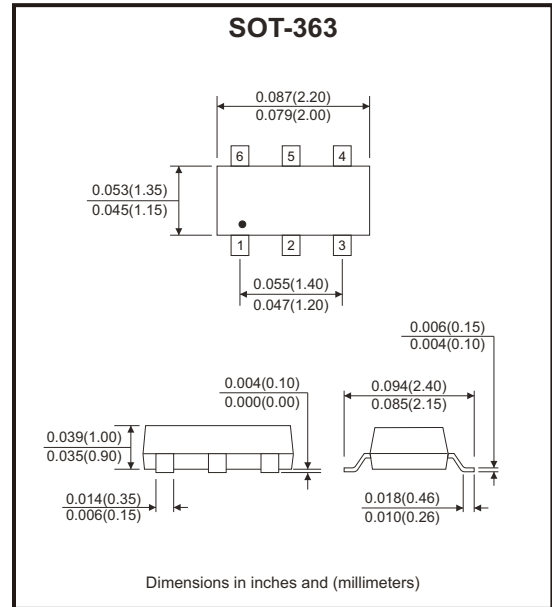
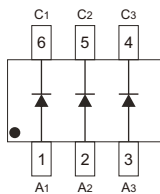
Features

- Fast switching speed.
- For general purpose switching applications.
- High conductance.

Mechanical data

- Case: SOT-363, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.

Circuit Diagram



Maximum Ratings (Single diode, 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}	300	mA
Average rectified output current	I_O	150	mA
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	2	A
Power dissipation	P_D	200	mW
Thermal resistance 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 (Single diode, at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu A$	75			V
Forward voltage	V_{F1}	$I_F=1mA$			0.715	V
	V_{F2}	$I_F=10mA$			0.855	
	V_{F3}	$I_F=50mA$			1.0	
	V_{F4}	$I_F=150mA$			1.25	
Reverse current	I_{R1}	$V_R=20V$			25	nA
	I_{R2}	$V_R=75V$			1	μA
Capacitance between terminals	C_T	$V_R=0V, f=1MHz$			2	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 (CDSV6-16-G/4148-G)

Fig.1 - Forward Characteristics

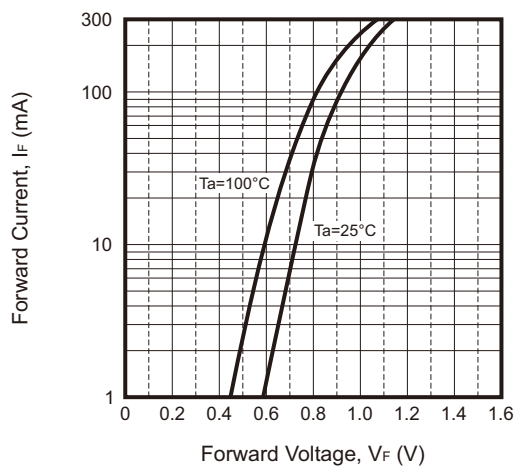


Fig.2 - Reverse Characteristics

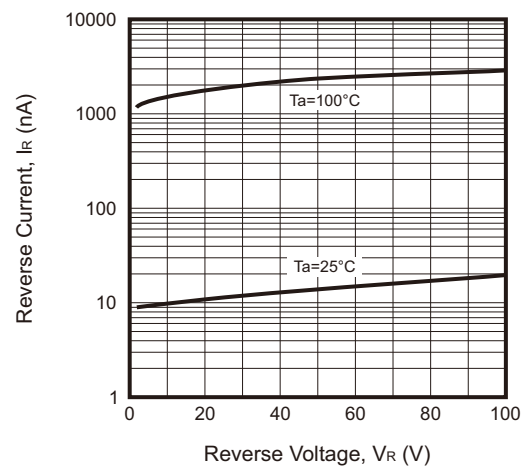


Fig.3 - Capacitance Characteristics

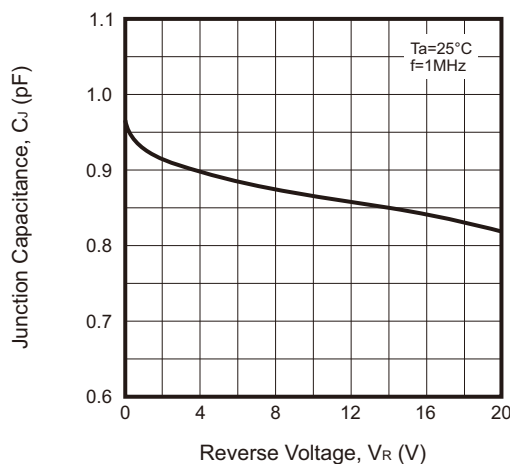
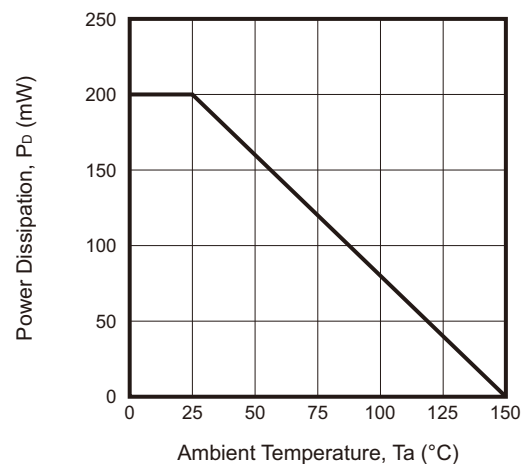
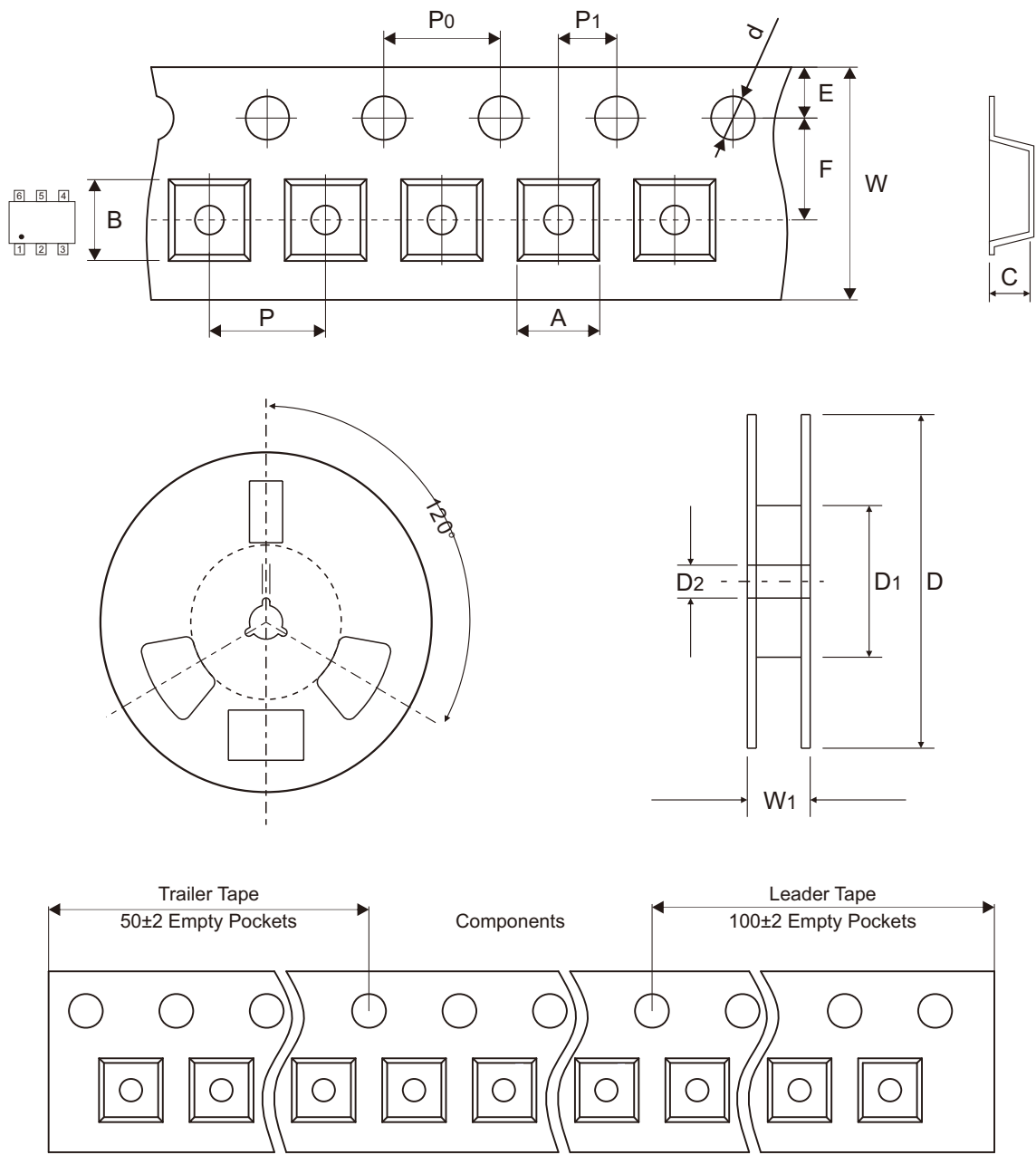


Fig.4 - Power Derating Curve



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

Reel Taping Specification

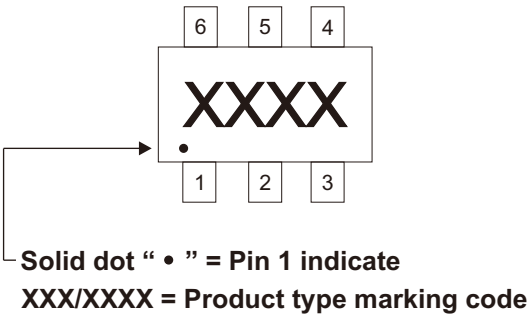


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25 ± 0.10	2.55 ± 0.10	1.20 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.089 ± 0.004	0.100 ± 0.004	0.047 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOT-363	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

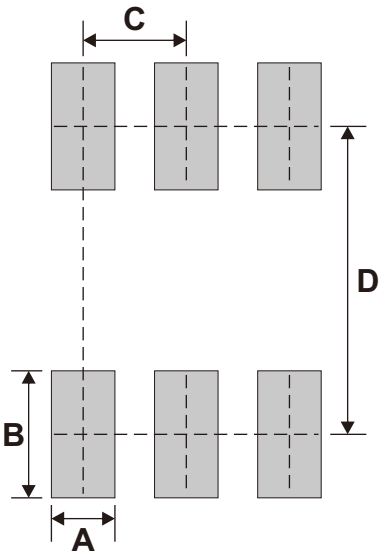
Part Number	Marking Code
CDSV6-16-G	KA2•
CDSV6-4148-G	KA2



Suggested PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.40	0.016
B	0.80	0.031
C	0.65	0.026
D	1.94	0.076

Note: 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-363	3,000	7