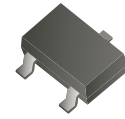


ACDST-99-HF/70-HF

Reverse Voltage: 70 V
Forward Current: 200 mA
RoHS Device
Halogen Free



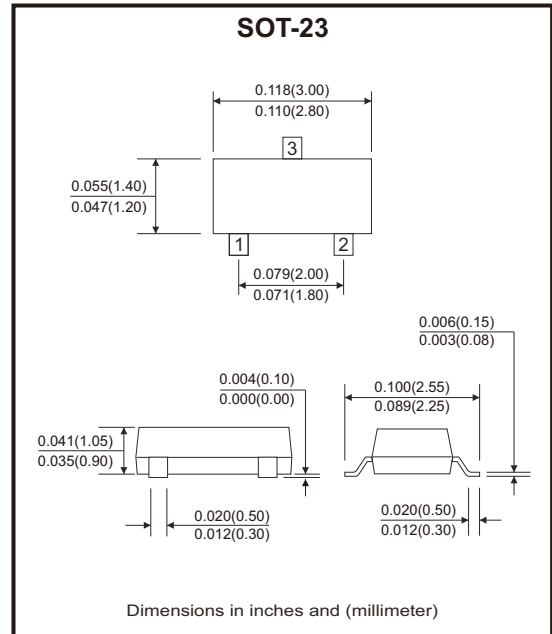
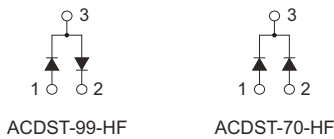
Features

- Fast switching speed.
- For general purpose switching applications.
- High conductance.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOT-23, molded plastic.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Symbol	Value	Units
Reverse voltage	V_R	70	V
Forward current	I_F	200	mA
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	2	A
Power dissipation	P_D	225	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	556	°C/W
Operation junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Units
Reverse breakdown voltage	$I_R = 100\mu A$	V_{BR}	70			V
Forward voltage	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$	V_F			0.715 0.855 1.0 1.25	V
Reverse current	$V_R = 70V$	I_R			2.5	μA
Capacitance between terminals	$V_R = 0V, f = 1MHz$	C_T			1.5	pF
Reverse recovery time	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	t_{rr}			6	nS

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

Rating and Characteristic Curves (ACDST-99-HF/70-HF)

Fig.1 - Forward Characteristics

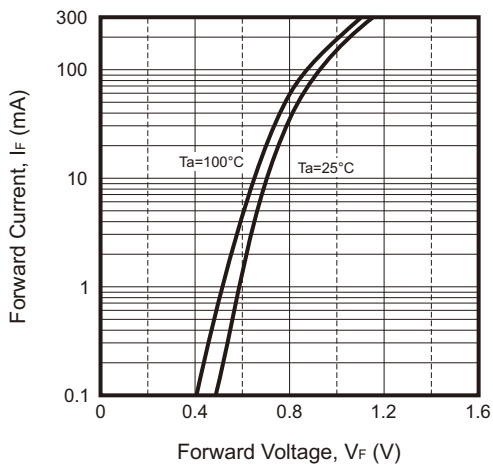


Fig.2 - Reverse Characteristics

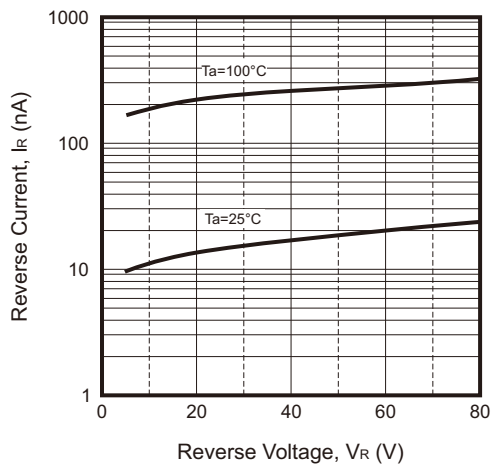


Fig.3 - Capacitance Characteristics

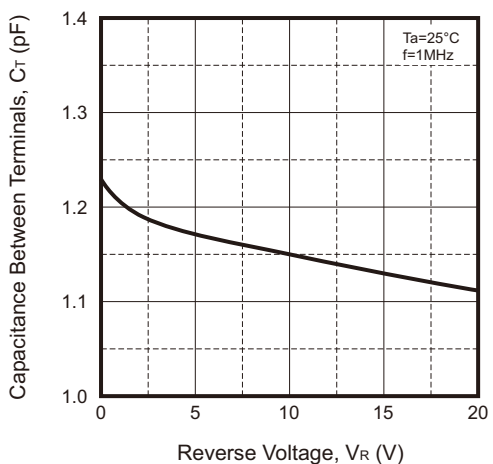
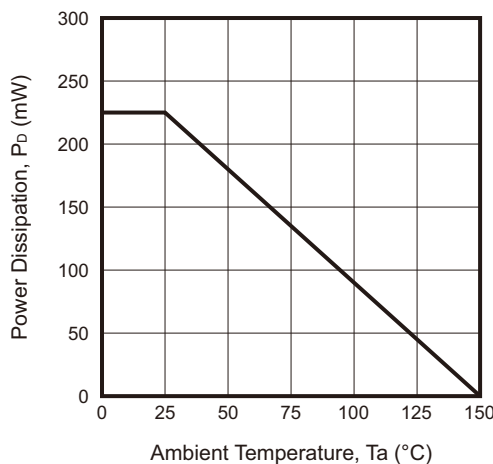
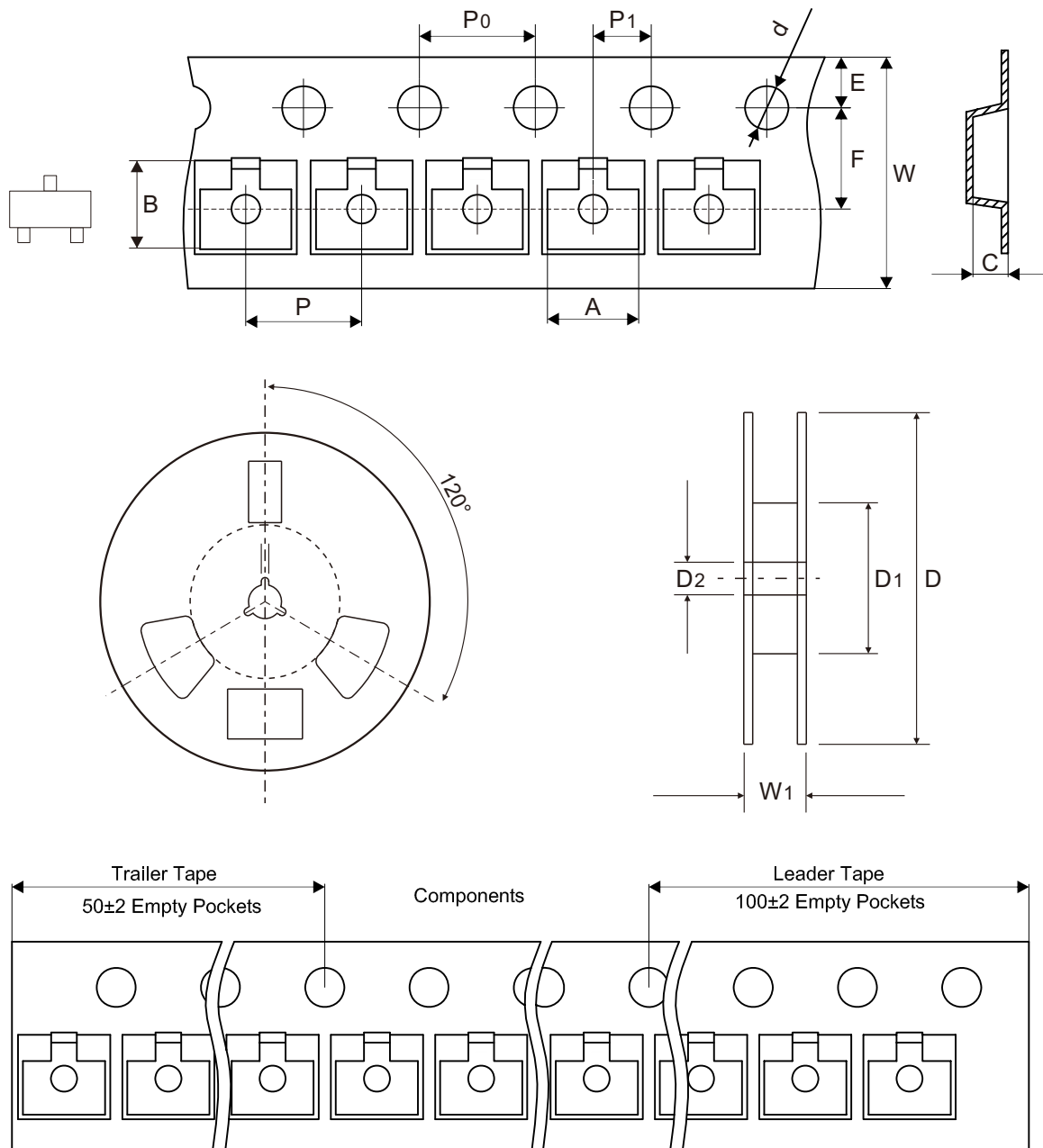


Fig.4 - Power Derating Curve



Reel Taping Specification



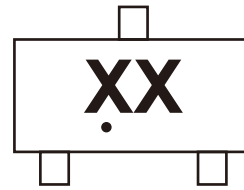
SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

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

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Marking Code

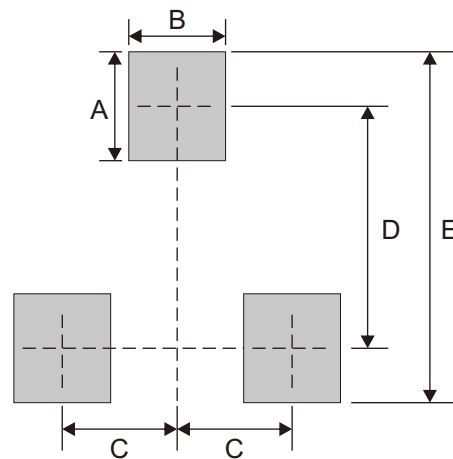
Part Number	Marking Code
ACDST-99-HF	A7
ACDST-70-HF	A4



Solid dot = Control code
xx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Standard Packaging

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