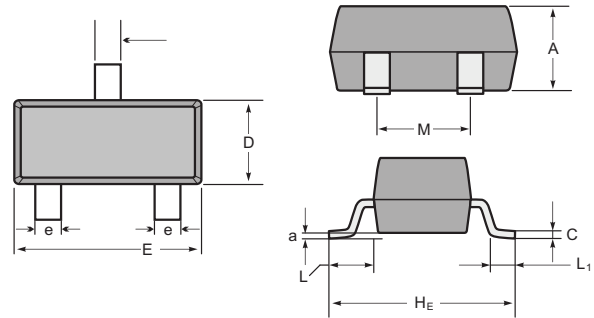
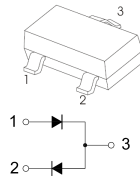


FEATURES

Low Leakage
High Conductance

MARKING: A13

SOT-23



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	50	Vdc
Collector-Emitter Voltage	V _{CEO}	50	Vdc
Collector Current	I _C	100	mAdc
Total Power Dissipation @ T _A = 25°C (Note 1.) Derate above 25°C	P _D	200 1.6	mW mW/°C
Thermal Resistance – Junction-to-Ambient (surface mounted)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{stg}	–65 to +150	°C
Maximum Temperature for Soldering Purposes, Time in Solder Bath	T _L	260 10	°C Sec

MMBD1503A

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=5\mu\text{A}$	200			V
Reverse current	I_R	$V_R=180\text{V}$			10	nA
Forward voltage	V_F	$I_F=1\text{mA}$			0.75	V
		$I_F=10\text{mA}$			0.85	
		$I_F=50\text{mA}$			0.95	
		$I_F=100\text{mA}$			1.1	
		$I_F=200\text{mA}$			1.3	
		$I_F=300\text{mA}$			1.5	
Total capacitance	C_{tot}	$V_R=0\text{V}, f=1\text{MHz}$			4	pF

RATING AND CHARACTERISTIC CURVES (MMBD1503A)

