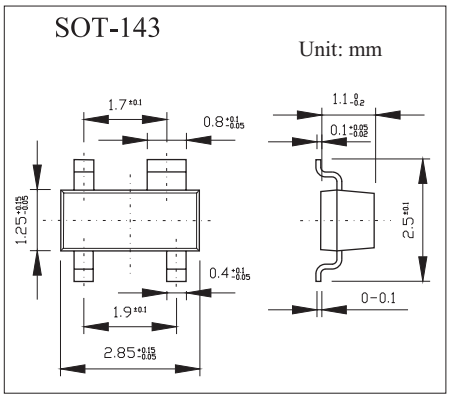
High-Speed Double Diode

BAS56



Features

- Small plastic SMD package
- High switching speed: max. 6 ns
- Continuous reverse voltage:max. 60 V
- Repetitive peak reverse voltage:max. 60 V
- Repetitive peak forward current:max. 600 mA.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Test Condition	Min	Max	Unit
repetitive peak reverse voltage	V_{RRM}			60	V
		series connection		120	
continuous reverse voltage	V_R			60	V
		series connection		120	
continuous forward current	I_F	single diode loaded;		200	mA
		double diode loaded;		150	
repetitive peak forward current	I_{FRM}	single diode loaded		600	mA
		double diode loaded		430	
non-repetitive peak forward current	I_{FSM}	square wave; T_j = 25℃prior to surge			A
		t = 1 μs		9	
		t = 100 μs		3	
		t = 10 ms		1.7	
total power dissipation	P_{tot}	Tamb = 25℃		250	mW
storage temperature	T_{stg}		-65	+150	℃
junction temperature	T_j			150	℃
thermal resistance from junction to tie-point	$R_{th\ j\text{-}tp}$			360	K/W
thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$			500	K/W

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Condition	Min	Max	Unit
forward voltage	V_F	I_F = 200 mA; DC value;		1.0	mV
reverse current	I_R	V_R = 60 V		100	nA
		V_R =60 V;T_j = 150℃		100	μA
reverse current	I_R	series connection			
		V_R = 120 V		100	nA
		V_R =120 V;T_j = 150℃		100	μA
diode capacitance	C_d	f = 1 MHz; V_R = 0		2.5	pF
reverse recovery time	t_{rr}	when switched from I_F = 400 mA to,I_R = 400 mA; R_L = 100 Ω; measured at I_R = 40 mA		6	ns
forward recovery voltage	V_{fr}	when switched from I_F = 400 mA;t_r = 30 ns;		2.0	V
		when switched from I_F = 400 mA;t_r = 100 ns;		1.5	V

■ Marking

Marking	L51