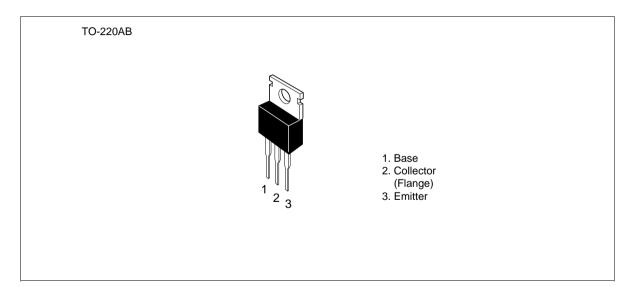
Silicon NPN Triple Diffused

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Application

TV horizontal deflection output

Outline





Absolute Maximum Ratings (Ta = 25°C)

		Rating			
Item	Symbol	2SD1163	2SD1163A	Unit	
Collector to base voltage	V _{CBO}	300	350	V	
Collector to emitter voltage	V _{CEO}	120	150	V	
Emitter to base voltage	V _{EBO}	6	6	V	
Collector current	Ι _c	7	7	А	
Collector peak current	C (peak)	10	10	А	
Collector surge current	C (surge)	20	20	А	
Collector power dissipation	P _c * ¹	40	40	W	
Junction temperature	Tj	150	150	°C	
Storage temperature	Tstg	-55 to +150	-55 to +150	°C	

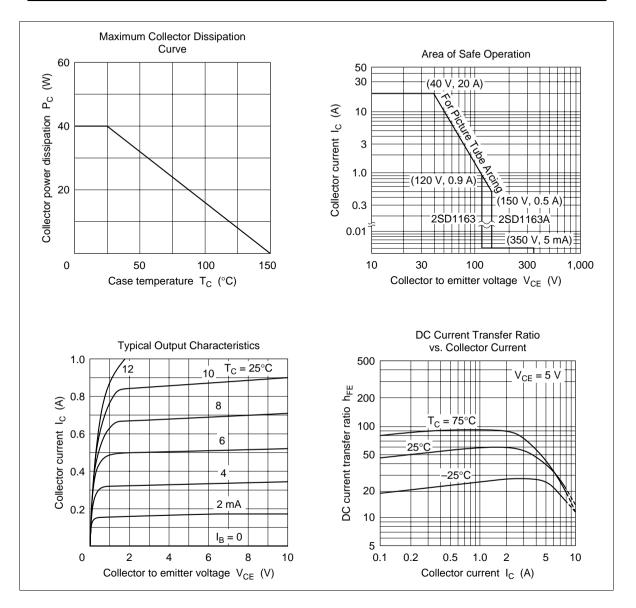
Note: 1. Value at $T_c = 25^{\circ}C$.

Electrical Characteristics (Ta = 25°C)

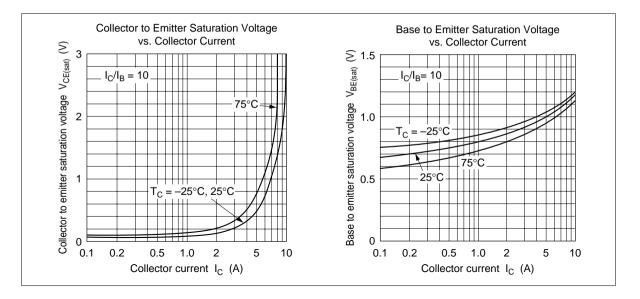
		2SD1	163		2SD1163A				
ltem	Symbol	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector cutoff current	I _{CBO}	_	_	5	_	_	_	mA	$V_{_{CB}} = 300 \text{ V}, \text{ I}_{_{E}} = 0$
		—	—	—	—		5	mA	$V_{_{CB}} = 350 \text{ V}, \text{ I}_{_{E}} = 0$
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	120	_	_	150	_	_	V	I_{c} = 10 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	6		_	6	_	_	V	$I_{\rm E} = 10$ mA, $I_{\rm C} = 0$
DC current transfer ratio	h _{FE}	25	_	_	25	_	_		$V_{ce} = 5 \text{ V}, \text{ I}_{c} = 5 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{\text{CE (sat)}}$	—	_	2.0	_	_	1.0	V	$I_{\rm c} = 5$ A, $I_{\rm B} = 0.5$ A ^{*1}
Base to emitter saturation voltage	$V_{\text{BE (sat)}}$	_	—	1.2	_	_	1.2	V	$I_{\rm C} = 5$ A, $I_{\rm B} = 0.5$ A ^{*1}
Fall time	t _f	—	—	0.5	—	—	0.5	μs	I _{CP} = 3.5 A, I _{B1} = 0.45 A

Note: 1. Pulse test.

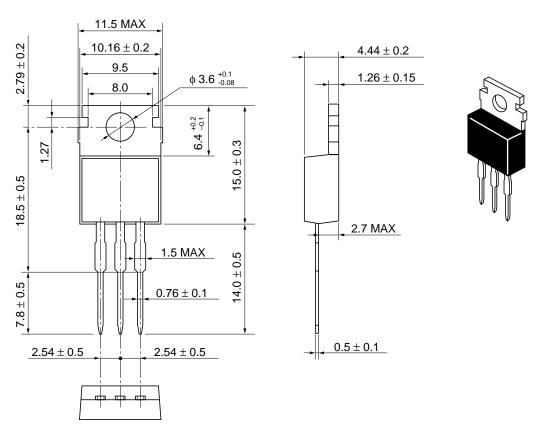
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Hitachi Code	TO-220AB
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.8 g

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