

Power Transistors



2SD1261, 2SD1261A

Silicon NPN triple diffusion planar type Darlington

For power amplification

Complementary to 2SB938 and 2SB938A

Features

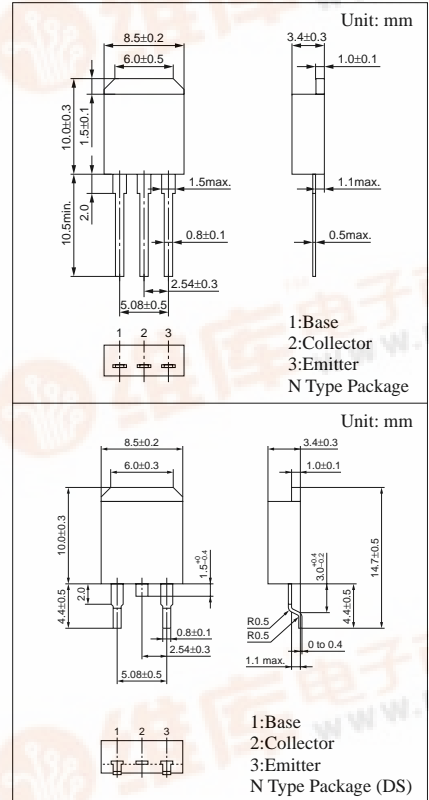
- High forward current transfer ratio h_{FE}
- High-speed switching
- N type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment.

Absolute Maximum Ratings ($T_C=25^\circ C$)

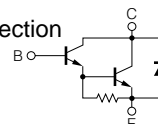
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V _{CB0}	60	V
2SD1261A		80	
Collector to emitter voltage	V _{CEO}	60	V
2SD1261A		80	
Emitter to base voltage	V _{EBO}	5	V
Peak collector current	I _{CP}	8	A
Collector current	I _C	4	A
Collector power dissipation	P _C	40	W
T _C =25°C T _a =25°C		1.3	
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics ($T_C=25^\circ C$)

Parameter	Symbol	Conditions	min	typ	max	Unit	
Collector cutoff current	I _{CB0}	V _{CB} = 60V, I _E = 0			200	μA	
2SD1261A		V _{CB} = 80V, I _E = 0			200		
Collector cutoff current	I _{CEO}	V _{CE} = 30V, I _B = 0			500	μA	
2SD1261A		V _{CE} = 40V, I _B = 0			500		
Emitter cutoff current	I _{EBO}	V _{EB} = 5V, I _C = 0			2	mA	
Collector to emitter voltage	V _{CEO}	I _C = 30mA, I _B = 0	60			V	
2SD1261A			80				
Forward current transfer ratio	h _{FE1} h _{FE2} *	V _{CE} = 3V, I _C = 0.5A	1000				
		V _{CE} = 3V, I _C = 3A	1000		10000		
Base to emitter voltage	V _{BE}	V _{CE} = 3V, I _C = 3A			2.5	V	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 3A, I _B = 12mA			2	V	
		I _C = 5A, I _B = 20mA			4		
Transition frequency	f _T	V _{CE} = 10V, I _C = 0.5A, f = 1MHz		20		MHz	
Turn-on time	t _{on}	I _C = 3A, I _{B1} = 12mA, I _{B2} = -12mA, V _{CC} = 50V		0.5		μs	
Storage time	t _{stg}				4		μs
Fall time	t _f				1		μs



Internal Connection



PDF Rank Classification

Rank	R	Q	P
h _{FE2}	1000 to 2500	2000 to 5000	4000 to 10000



