

2SD1641

Silicon PNP Triple-Diffused Planar Type

High DC Current Gain (h_{FE}), High Power Amplifier
TV Power Source Output

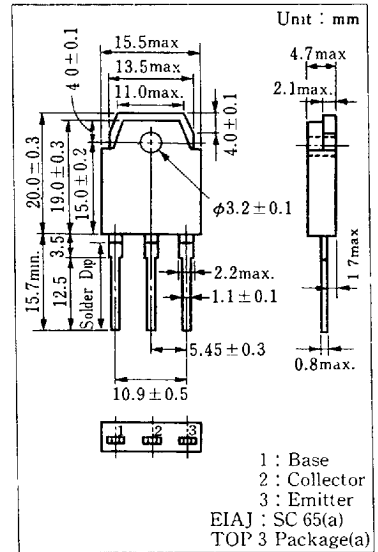
■ Features

- Wide area of safety operation (ASO)
- Protective avalanche diode built-in
- High DC current gain (h_{FE})
- Good linearity of DC current gain (h_{FE})

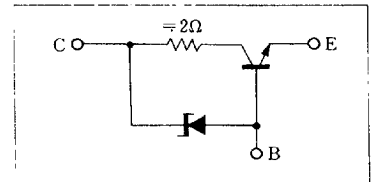
■ Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

Item	Symbol	Value	Unit	
Collector-base voltage	V_{CB0}	$55\frac{-15}{10}$	V	
Collector-emitter voltage	V_{CE0}	$55\frac{-15}{10}$	V	
Emitter-base voltage	V_{EB0}	5	V	
Peak collector current	I_{CP}	20	A	
Collector current	I_C	4	A	
Collector power dissipation	P_C	$T_c=25^\circ\text{C}$	80	W
		$T_a=25^\circ\text{C}$	2.5	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{STR}	$-55\sim+150$	$^\circ\text{C}$	

■ Package Dimensions



■ Inner Circuit



■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -30\text{ V}, I_E = 0$			100	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$			10	μA
Collector-base voltage	V_{CB0}	$I_C = 10\text{ mA}, I_E = 0$	45		70	V
Collector-emitter voltage	V_{CE0}	$I_C = 100\text{ mA}, I_B = 0$	45		70	V
DC current gain	h_{FE}	$V_{CE} = 5\text{ V}, I_C = 0.5\text{ A}$	500		2500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 0.5\text{ A}, I_B = 2\text{ mA}$			2	V
Base-emitter saturation voltage	$V_{CE(sat)2}$	$I_C = 1\text{ A}, I_B = 20\text{ mA}$			3	V
Base voltage	V_{BE}	$V_{CE} = 5\text{ V}, I_C = 0.5\text{ A}$			0.8	V
Transition frequency	f_T	$V_{CE} = 10\text{ V}, I_C = 0.5\text{ A}, f = 10\text{ MHz}$		45		MHz

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Panasonic

