

RoHS Compliant Product
A suffix of "-C" specifies halogen-free

DESCRIPTION

The SZD772 is signed for using in output stage of 10W amplifier, voltage regulator, DC-DC converter and relay driver.

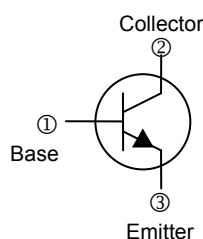
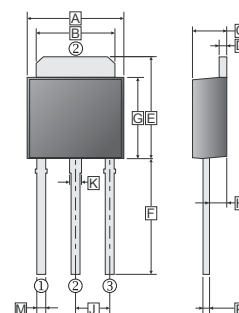
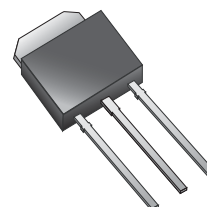
MARKING



CLASSIFICATION OF h_{FE} (2)

Product-Rank	SZD772-Q	SZD772-P	SZD772-E
Range	100~200	160~320	250~500

TO-251



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.40	6.80	G	5.40	5.80
B	5.20	5.50	H	0.90	1.50
C	2.20	2.40	J	2.30	
D	0.45	0.55	K	0.60	0.90
E	6.80	7.20	M	0.50	0.70
F	7.20	7.80	P	0.45	0.60

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

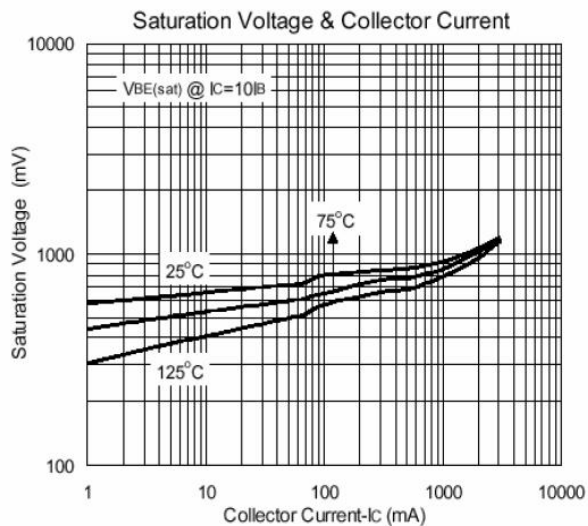
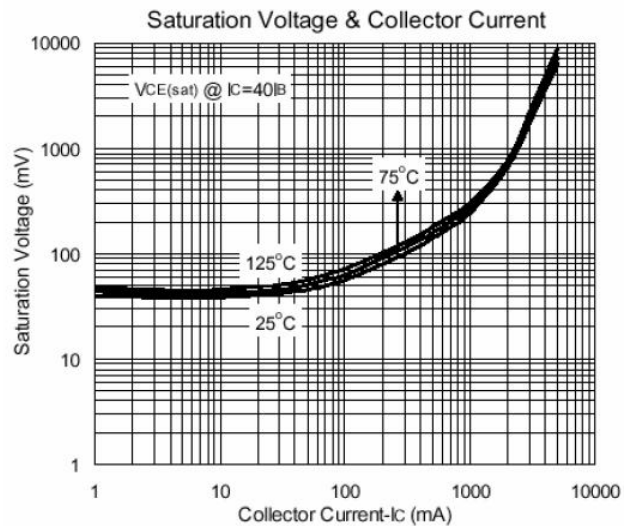
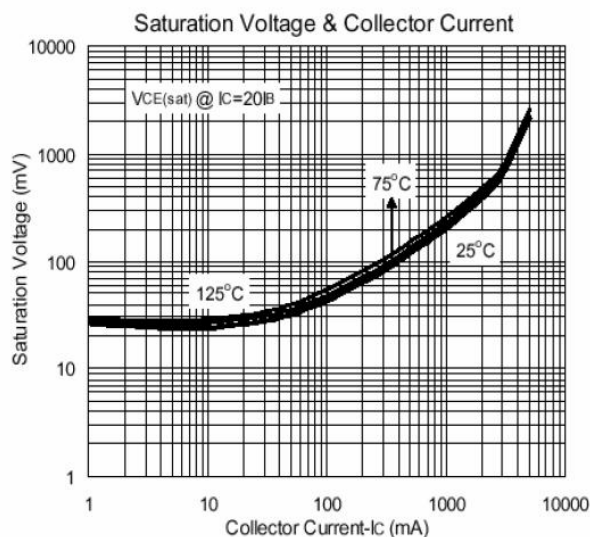
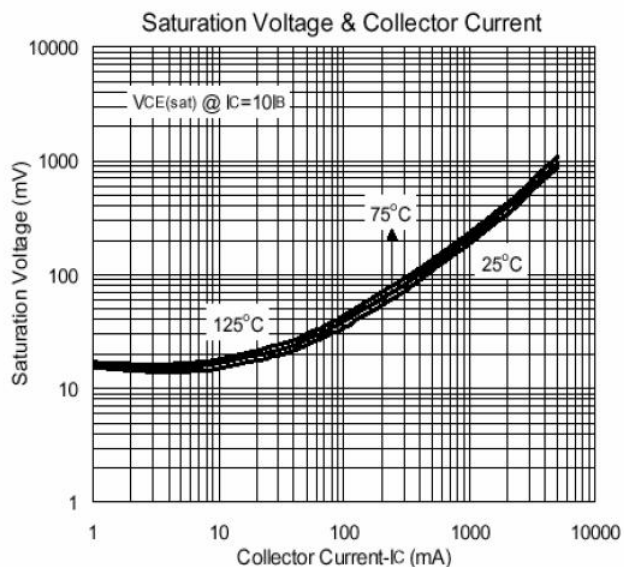
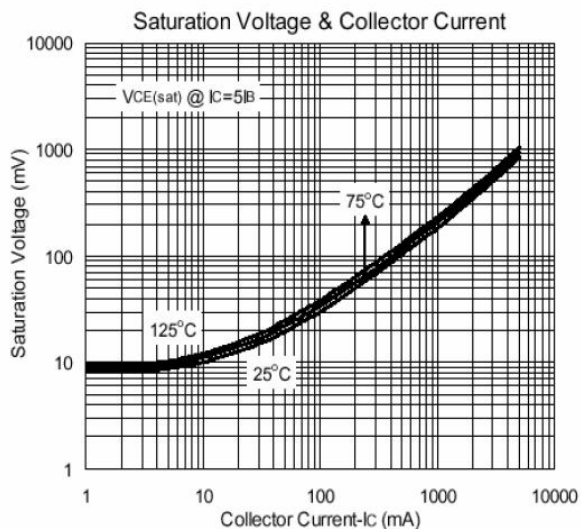
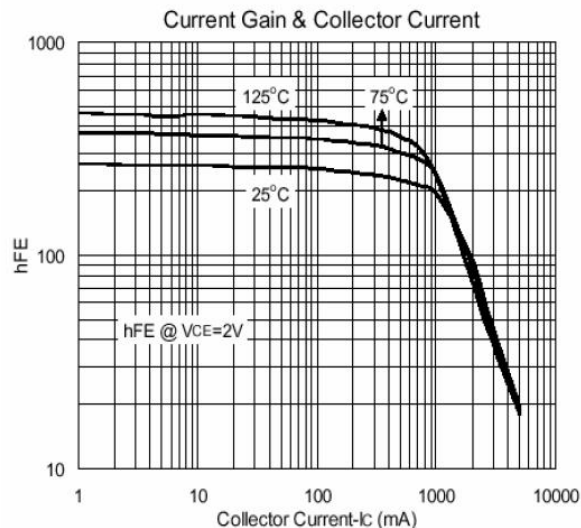
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-3	A
Collector Current (Pulse)	I_{CP}	-7	A
Base Current	I_B	-0.6	A
Total Power Dissipation($T_C=25^\circ\text{C}$)	P_D	10	W
Junction & Storage temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-30	-	-	V	$I_C = -1\text{mA}, I_B = 0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector cut-off current	I_{CBO}	-	-	-1	μA	$V_{CB} = -30\text{V}, I_E = 0$
Emitter cut-off current	I_{EBO}	-	-	-1	μA	$V_{EB} = -3\text{V}, I_C = 0$
DC current gain	$*h_{FE(1)}$	30	-	-		$V_{CE} = -2\text{V}, I_C = -20\text{mA}$
	$*h_{FE(2)}$	100	-	500		$V_{CE} = -2\text{V}, I_C = -1\text{A}$
Collector-emitter saturation voltage	$*V_{CE(sat)}$	-	-0.3	-0.5	V	$I_C = -2\text{A}, I_B = -0.2\text{A}$
Base-emitter saturation voltage	$*V_{BE(sat)}$	-	-1	-2	V	$I_C = -2\text{A}, I_B = -0.2\text{A}$
Transition frequency	f_T	-	80	-	MHz	$V_{CE} = -5\text{V}, I_C = -0.1\text{A}, f = 100\text{MHz}$
Output Capacitance	C_{ob}	-	55	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$

*Pulse Test: Pulse Width $\leq 380\text{s}$, Duty Cycle $\leq 2\%$

CHARACTERISTIC CURVES



CHARACTERISTIC CURVES

