



2SD850

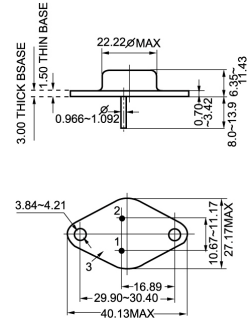
Silicon Diffused Power Transistor

GENERAL DESCRIPTION

Highvoltage,high-speed switching npn transistors in a plastic package primarily for use in horizontal deflection circuites of colour television receivers



TO-3



QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
V _{CESM}	Collector-emitter voltage peak value	V _{BE} = 0V	-	1500	V
V _{CEO}	Collector-emitter voltage (open base)		-	600	V
I _C	Collector current (DC)		-	3	A
I _{CM}	Collector current peak value		-	6	A
P _{tot}	Total power dissipation	T _{mb} ≤ 25°C	-	40	W
V _{CEsat}	Collector-emitter saturation voltage	I _C = 3.0A; I _B = 0.8A	-	5	V
I _{csat}	Collector saturation current	f = 16KHz	-	-	A
V _F	Diode forward voltage				V
t _f	Fall time	I _{Csat} = 3.0A; f = 16KHz		1.0	μs

LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CESM}	Collector-emitter voltage peak value	V _{BE} = 0V	-	1500	V
V _{CEO}	Collector-emitter voltage (open base)		-	600	V
I _C	Collector current (DC)		-	3	A
I _{CM}	Collector current peak value		-	6	A
I _B	Base current (DC)		-		A
I _{BM}	Base current peak value		-		A
P _{tot}	Total power dissipation	T _{mb} ≤ 25°C	-	40	W
T _{sta}	Storage temperature		-55	150	°C
T _j	Junction temperature		-	150	°C

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
I _{CE}	Collector cut-off current	V _{BE} = 0V; V _{CE} = V _{CESMmax}	-	1.0	mA
I _{CES}		V _{BE} = 0V; V _{CE} = V _{CESMmax} T _j = 125°C	-	2.5	mA
V _{CEO} sust	Collector-emitter sustaining voltage	I _B = 0A; I _C = 100mA L = 25mH	-		V
V _{CEsat}	Collector-emitter saturation voltages	I _C = 3.0A; I _B = 0.8A	-	5	V
V _{BEsat}	Base-emitter saturation voltage	I _C = 3.0A; I _B = 0.8A	-	1.5	V
h _{FE}	DC current gain	I _C = 0.5A; V _{CE} = 5V	8		
V _F	Diode forward voltage				V
f _T	Transition frequency at f = 5MHz	I _C = 0.1A, V _{CE} = 10V	3	-	MHz
C _c	Collector capacitance at f = 1MHz	V _{CB} = 10V	90	-	pF
t _s	Switching times(16KHz line deflecton circuit)	I _C = 3A, I _{B(end)} = 0.8A, V _{CC} = 105V		-	μs
t _f	Turn-off storage time Turn-off fall time	I _C = 3A, I _{B(end)} = 0.8A, V _{CC} = 105V		1.0	μs