

KSC2500

NPN EPITAXIAL SILICON TRANSISTOR

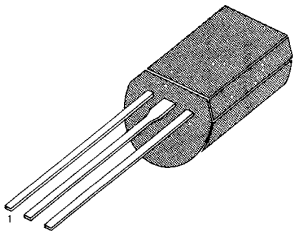
MEDIUM POWER AMPLIFIER
LOW SATURATION

ABSOLUTE MAXIMUM RATINGS (T_A=25℃)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	30	V
Collector-Emitter Voltage	V _{CES}	30	V
Collector-Emitter Voltage	V _{CBO}	10	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current (DC)	I _C	2	A
*Collector Current (Pulse)	I _C	5	A
Base Current	I _B	0.5	A
Collector Dissipation	P _C	900	mW
Junction Temperature	T _J	150	℃
Storage Temperature	T _{STG}	-55 ~150	℃

*PW ≤ 10ms, Duty Cycle ≤ 30%

TO-92L



1. Emitter 2. Collector 3. Base

ELECTRICAL CHARACTERISTICS (T_A=25℃)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-off Current	I _{CBO}	V _{CB} =30V, I _E =0			100	nA
Emitter Cut-off Current	I _{EBO}	V _{EB} =6V, I _C =0			100	nA
Collector-Emitter Breakdown Voltage	BV _{CBO}	I _C =10mA, I _B =0	10			V
Emitter Base Breakdown Voltage	BV _{EBO}	I _E =1mA, I _C =0	6			V
DC Current Gain	h _{FE} 1	V _{CE} =1V, I _C =0.5A	140		600	
	h _{FE} 2	V _{CE} =1V, I _C =2A	70	200		
Collector Emitter Saturation Voltage	V _{CE} (sat)	I _C =2A, I _B =50mA		0.2	0.5	V
Base Emitter On Voltage	V _{BE} (on)	V _{CE} =1V, I _C =2A		0.86	1.5	V
Current Gain Bandwidth Product	f _T	V _{CE} =1V, I _C =0.5A		150		MHz
Output Capacitance	C _{OB}	V _{CB} =10V, I _E =0, f=1MHz		27		pF

h_{FE}(1) CLASSIFICATION

Classification	A	B	C	D
h _{FE} (1)	140-240	200-330	300-450	420-600



