

**KSC2500**

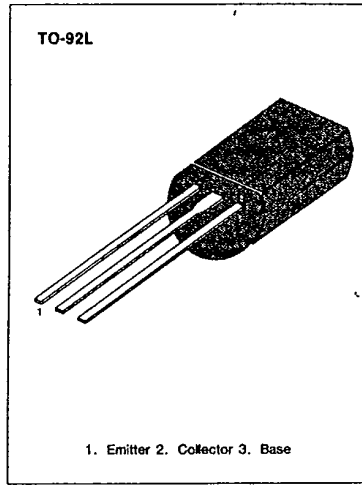
**NPN EPITAXIAL SILICON TRANSISTOR**

**MEDIUM POWER AMPLIFIER  
LOW SATURATION**

•  $V_{CE(sat)}=0.5V$  ( $I_C=2A, I_B=50mA$ )

**ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ C$ )**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CES}$	30	V
Collector-Emitter Voltage	$V_{CEO}$	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	$^\circ C$
Storage Temperature	$T_{stg}$	-55~150	$^\circ C$



\*  $PW \leq 10ms$ , Duty Cycle  $\leq 30\%$

**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=30V, I_E=0$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=6V, I_C=0$			100	nA
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10mA, I_B=0$	10			V
Emitter Base Breakdown Voltage	$BV_{EBO}$	$I_E=1mA, I_C=0$	6			V
DC Current Gain	$h_{FE1}$	$V_{CE}=1V, I_C=0.5A$	140		600	
	$h_{FE2}$	$V_{CE}=1V, I_C=2A$	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



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