

**SOT-23**


- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

**MARKING: Y2**
**Features**

- High Collector Current
- Complementary to SS8050

**Maximum Ratings**

(Ratings at 25°C ambient temperature unless otherwise specified.)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-1.5	A
$P_C$	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	°C/W
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55~+150	°C

**Electrical Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-0.1mA, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-40V, I_E=0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5V, I_C=0$			-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=-1V, I_C=-100mA$	120		400	
	$h_{FE(2)}$	$V_{CE}=-1V, I_C=-800mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-800mA, I_B=-80mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-800mA, I_B=-80mA$			-1.2	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=-1V, I_C=-10mA$			-1	V
Transition frequency	$f_T$	$V_{CE}=-10V, I_C=-50mA, f=30MHz$	100			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10V, I_E=0, f=1MHz$			20	pF

**CLASSIFICATION OF  $h_{FE(1)}$** 

RANK	L	H	J
RANGE	120 - 200	200 - 350	300 - 400

